DISCLAIMER:

This document does not meet the
current format guidelines of
the Graduate School at
The University of Texas at Austin.

It has been published for
informational use only.

The Thesis Committee for Ashley Lynn Hvolbeck Livingston
Certifies that this is the approved version of the following thesis:

Evaluating Mixed Use Developments: Successes, Failures, and Recommendations for Future Developments

APPROVED BY
SUPERVISING COMMITTEE:

Supervisor:

Kent Butler

Ming Zhang

Evaluating Mixed Use Developments: Successes, Failures, and Recommendations for Future Developments

by

Ashley Lynn Hvolbeck Livingston, B.A.

Thesis

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Science in Community and Regional Planning

The University of Texas at Austin

May 2011

Acknowledgements

Special thanks to the following individuals who provided invaluable information to aid in the creation of this report. Those listed below participated in interviews via face-to-face interviews, by phone or both. While information they provided is used in this thesis, it will not be directly attributed to their names specifically in order to maintain confidentiality.

Sean Compton
Kate McDonald
Annick Beaudet
Terry Mitchell
Lucy Galbraith
Sam Roberts
Matt Green
Molly Scarborough
David Hutton
Henry Stewart
Richard Maier
Chris Yanez
Jane McAdams

Abstract

Evaluating Mixed Use Developments: Successes, Failures, and Recommendations for Future Developments

Ashley Lynn Hvolbeck Livingston, MSCRP

The University of Texas at Austin, 2011

Supervisor: Kent Butler

This paper seeks to develop an understanding of the conceptualization and development processes of two mixed-use developments in the Austin, Texas area: Midtown Commons, a transit-oriented development, and Cedar Park Town Center, a proposed New Urbanist style town center. Following a critical analysis of the pertinent literature that defines and contextualizes mixed-use, the author explores the history and background of each case study. Each case study is then evaluated and scored on a series of criteria to determine how successful each project has been, and what barriers each project faced in the development process. The paper ends with the author's conclusions and recommendations for future mixed-use projects in Austin.

Table of Contents

List of Tables

List of Illustrations

CHAPTER 1: INTRODUCTION, BACKGROUND, CONTEXT

Mixed-use is a broad and relatively ambiguous term. Its definitions vary, but the term mixed-use typically can include vertical mixed-use, multi-use districts, and transit-oriented developments. Mixed-use is touted as an ideal method of city planning, and a necessary aspect of creating a "good community." It is viewed by some as just one aspect of proper urban design—a cohesive group of planning methods that are meant to be implemented collectively. Others view it as a stand-alone development method. Some consider it a tool for solving urban issues.[1] The trend towards mixing uses, as a specific development method originated in the aftermath of post-World War II suburbanization. Mixing uses has been emphasized due to the claims the mixed-use projects can provide a large range of benefits that single-use developments cannot. In fact, there has been a significant amount of criticism directed toward single-use developments including, but not limited to, claims that single-use developments are unsustainable, encourage auto-dependence, are inequitable, and are architecturally bland.[2] Edmund Bacon, as quoted in the ULI publication *Mixed Use Developments: New Ways of Land Use*, offers substantial justification in favor of this neo-traditional form of development:

> Why undertake such projects? Because they intensify the richness of living, enhance people's range of experience and create easy access to a nearly inexhaustible variety of activities. Mixed use developments are designed at a

[1] Coupland, Andy. *Reclaiming the City: Mixed use development.* 1st ed. E & FN Spon, 1997.

[2] Duany, Andres, Elizabeth Plater-Zyberk, and Jeff Speck. *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream.* 1st ed. North Point Press, 2001.

> human scale and represent a positive objective of keeping central cities alive and making cities a viable organism. In addition to enhancing downtown, they also facilitate focal points of regional significance at appropriate locations in the suburbs.[3]

Statements such as these place a heavy burden and expectation on mixed-use developments, implying they are a panacea for reversing urban decline. However, from the standpoint of a casual observer it seems that while mixed-use developments have witnessed such wide acclaim for their ability to provide greater benefit to society than traditional development can, these exact benefits are variable and inconsistent. This fact is not necessarily surprising—each development is entirely different from the next. Environment, market conditions, player and stakeholder demands, etc. vary from project to project, ultimately influencing the end result of a project. Additionally, development processes across projects certainly vary, ranging from timelines, to access to capital, to financing structures.

These inconsistencies between developments are also the result of inconsistency in defining what a mixed-use development is, and what it should accomplish—most benchmarks used to evaluate mixed-use projects are based solely on physical form and whether the development meets the basic criterion of providing more than one use.[4] This rudimentary definition seems superficial and incomplete: it is my assumption that design, architecture, location (within a city, a region, or nationally), integration into the

---

[3] Witherspoon, Robert E., John P. Abbett, and Robert M. Gladstone. *Mixed-Use Developments: New Ways of Land Use.* The Urban Land Institute, 1976.

[4] Belzer, Dena, and Gerald Autler. "Transit Oriented Development: Moving From Rhetoric To Reality." *The Brookings Institution Center on Urban and Metropolitan Policy* (2002): 1-38.

urban fabric, political climates, economic climates, public perception, and legal circumstances are just some of a long list of factors that influence how a mixed-use project is defined and evaluated, and furthermore how it is conceptualized and implemented. Understanding how these many factors are linked, and how they affect each step in the development process is of great importance in knowing what makes for a successful development project and what does not.

This led to my initial research question, which was: do mixed-use developments provide the benefits that are claimed? Why or why not? Throughout the last century there have been numerous attempts at finding the "best" method for planning. Many schools of thought have sought to fix many of the present times' social and environmental issues through planning mechanisms (i.e. Ebenezer Howard's Garden Cities, Robert Moses' Urban Renewal, post World War II suburbanization). While these planning movements were undoubtedly influential on future planning movements and decisions, many of them have been recorded as failures.[5] Is it because the needs of society change, and thus the most effective planning mechanism changes? Or is it possible that planners have failed to look forward to effectively understand and accommodate future societal needs? Or is because any planning method is unable to serve as a panacea for urban, social, and environmental problems? The answers to these questions are outside the scope of this paper. However, it is important to note that many of these historical planning movements have resulted in time wasted, money lost, and unintended consequences. The impetus for this paper was to find a way to prevent mixed-use development from seeing the same fate, specifically in the Austin, TX area.

[5] Coupland, *Reclaiming the City*, 49-55.

From this initial research question stemmed a list of three research purposes/goals that will be explored in the remainder of this paper. They are:

1. To gain an understanding of the development processes that occur in mixed-use development projects and to understand how these processes impact the projects' success, using a case study method.
2. To evaluate whether or not a mixed-use development is "successful".
3. To draw conclusions about the Austin development climate that can help those involved in the creation of mixed-use developments in the future.

In order to begin to address these research questions, a number of more specific questions were developed. These questions served as a guide for the research process:

1. What players and decision makers influence the outcome of a mixed-use development (planners, architects, city officials, financiers, real estate professionals)?
2. What are the expected benefits of mixed-use developments according to each group of players?
3. What are the actual benefits of mixed-use developments?
4. What is the definition of a successful mixed-use development?
5. Are the expected (or actual) benefits of mixed-use developments consistent across locations? What about between decision makers and end users?
6. Do these benefits (expected or actual) vary between different types of mixed-use projects?

Not all of these questions were addressed during the research process, but they helped inform the project's methodology and the subsequent analyses.

The research for this project took place over the course of Fall Semester 2010 and Spring Semester 2011. The research was based in Austin, Texas and the primary data collection methods included focus groups, individual interviews, observation, and surveys. Research was conducted by a team of four co-investigators: Amy Jones, Kerstin Harding, John Stanley, and myself. The four members of the research team were commissioned by Envision Central Texas (ECT), a non-profit dedicated to regional planning and coordination in the central Texas area, to research and evaluate two mixed-use developments in the Austin region: Midtown Commons, a transit-oriented development, and Cedar Park Town Center, a mixed-use town center. Envision Central Texas chose these two projects because they represent two different types of mixed-use developments, in two different types of locations (central city, versus suburb). Envision Central Texas was very interested in understanding the initial vision for each project, and how the final product differed from this vision. ECT was also eager to understand what circumstances led to the changes between initial vision and final product. This goal influenced the research project and guided the format and development of this paper.

Midtown Commons is a transit-oriented development, located in central Austin, along Austin's Capital Metro Red Line. A rail stop, owned by the City of Austin, is immediately adjacent to the property and signifies the center of what the City has defined as the Lamar Boulevard/Justin Boulevard transit-oriented development zone.

The development offers a varying range of apartment units, live/work units, and commercial space, though as of April 2011 the commercial space was only occupied at roughly 25%.

Cedar Park Town Center is a single-family residential development that will eventually become home to the City of Cedar Park's "downtown district". As of April 2011 the development offered a variety of single-family detached residences, however, no multi-family apartment units or commercial space had yet been constructed.

When the project was initially conceptualized a broader research area was considered. However, when the research team became involved with Envision Central Texas, to the research focus was narrowed to include only the Austin area, enabling access to local resources and information.

Each member of the research team had a different focus and emphasis. Jones focused her research on understanding the collaborative processes behind each development through frame analysis. Harding explored the financial processes, and Stanley explored the relationship between the public and private sectors as it relates to the formation of each project. My role focused on evaluating the success of the two mixed-use projects, drawing conclusions about what were barriers or opportunities for each project, and providing recommendations on how to effectively deal with those barriers in future projects in Austin.

The paper seeks to development an understanding of the discussion surrounding mixed-use development, and what implications this has on the successful development

of mixed-use projects in Austin. The paper begins with an analysis of the variety of definitions given to mixed-use development is, and varying interpretations of what one should accomplish. This section of the paper also explores the repercussions that inconsistency in definition and expectations of mixed-use development might have on evaluation of previously built projects. This section concludes with the presentation of a precedent study that was used as a model for the remainder of my investigation.

Following this introductory section, I present the findings of my case study research for each project. These two chapters, Chapters 3 and 4, describe the conceptualization and evolution of each project, along with a summary of what exists on site as of April 2011. Chapter 5 goes on to discuss the methodologies used during the case study investigation, and describes the method used to evaluate the two developments in further detail.

Chapters 6 though 8 present the analysis of how successful each development has been according to the previously described method, and provides insights on how regulators and developers in the Austin area might deal with challenges unique to mixed-use development.

CHAPTER 2: CONCEPTUAL CONTEXT

INTRODUCTION

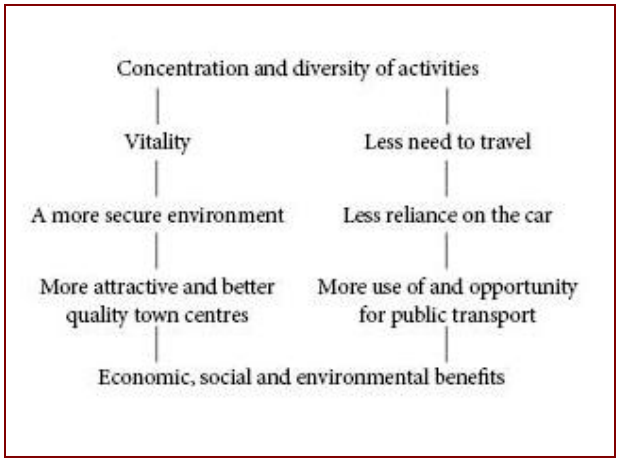
While the concept of mixed-use development is widely discussed and debated among academics and professionals, a clear definition of what "mixed-use development" truly means has yet to surface. This chapter will explore the varying interpretations and understandings of mixed-use development and the implications these understandings have on mixed-use development in practice.

Theoretical discussions often understand mixed-use development to be just one component of good urban design and community form, originating back to the ideas presented in Jane Jacobs' 1961 catalytic publication *The Death and Life of Great American Cities*. Common thought is that mixed-use, as part of a collective strategy to protect cities and suburbs from continued urban decline and sprawl, is capable of providing numerous "economic, social, and environmental benefits".[6] Mixed-use appears to be the key ingredient of a sustainable city or suburb, representing a reduction in automobile dependence, an increase in accessibility, equity, and diversity, and the economization of infrastructure requirements and parking costs.[7] Illustration 2.1 provides a succinct basis for this rationale.

---

[6] Coupland, *Reclaiming the City*, 3.

[7] Ewing, Reid et al. "Traffic Generated by Mixed-Use Developments – A Six-Region Study Using Consistent Built Environmental Measures." 1-49.



Ilustration 2.1 Flow Chart of Mixed-Use Benefits[8]

The argument presented in Illustration 2.1 seem, at a glance, quite simple and rational, and offers some insight as to why mixed-use has been enthusiastically absorbed into most contemporary planning and land-use movements.[9] Examples of such land-use movements are New Urbanism and Smart Growth. These movements are also excellent examples of the notion of a "collective" policy strategy. These movements include a series of development practices designed to be implemented collectively and cohesively in order to build more sustainable places, and encourage community development and strength. According the movement's website, New Urbanism is defined as:

> Promot[ing] the creation and restoration of diverse, walkable, compact, vibrant, mixed-use communities composed of the same components as conventional development, but assembled in a more integrated fashion, in the form of

[8] Ibid

[9] Grant, Jill. *Planning the good community: new urbanism in theory and practice.* London: Routledge, 2006.

> complete communities. These contain housing, work places, shops, entertainment, schools, parks, and civic facilities essential to the daily lives of the residents, all within easy walking distance of each other. New Urbanism promotes the increased use of trains and light rail, instead of more highways and roads. Urban living is rapidly becoming the new hip and modern way to live for people of all ages.[10]

While mixed-use is central to the idea of a New Urbanist community, it is just one component of it. Walkability, architecture, density, and design are equally as important to mixing uses, and a community is not considered New Urbanist, unless of all these criteria are met. Additionally, a true New Urbanist community has been implemented according to the very specific and prescriptive form based code written by the founders of New Urbanism. Many new developments, including the Cedar Park Town Center, have been designed with New Urbanist concepts in mind, but are not technically New Urbanist because they were not designed under the specific New Urbanist code.

New Urbanism and its close relative, Smart Growth, are not the only planning movements promoting mixed-use. Indeed, the concept has been described by several different titles and authors, including Peter Calthorpe's Transit Oriented Design (TOD), Emily Talen's traditional urbanism. The concept seems to be synonymous with the term traditional neighborhood design (TND) as well.[11] All of these groups, however, understand mixed-use based on its expected outcomes (outcomes explained in

---

[10] "New Urbanism." New Urbanism. http://newurbanism.org (accessed April 28, 2011).

[11] Grant, *Planning the Good Community*.

Illustration 2.1). These expected outcomes are what provide justification for city policies promoting mixed-use.

MIXED-USE IN CITY POLICY

Much debate still remains about what the most effective tools and policies are to achieve these outcomes. Indeed, the ideological beliefs surrounding mixed-use and the idea of what makes for a "good community" have spawned nearly a half-century search for a planning policy or tool that is capable of realizing said outcomes, and reversing the ill-effects of suburban sprawl. Grant explains that:

> as state agents charged with helping to generate better communities, planner by necessity search for appropriate urban strategies. In recent decades, planners have shouldered the blame for many of the problems of the city. In their efforts to find positive alternatives to suburban sprawl, many have found considerable appeal in new urbanism.[12]

New Urbanism, however, while achieving wide acclaim for its supposed ability to rejuvenate and inspire the lifeless suburb, faces much criticism for its excessively prescriptive guidelines and inflexibility, along with its founders' refusal to provide theoretical support for their claims.[13] While New Urbanism may not be the preferred tool to achieve these outcomes, it seems evident in contemporary planning practice that mixed-use has risen above the debate to become a highly emphasized aspect of our cities and suburbs.

---

[12] Grant, Planning the Good Community, 5.

[13] Talen, Emily. "New Urbanism and the Culture of Criticism." Urban Geography 21, no. 4 (2000): 318-341.

AMBIGUITY ABOUT MIXED-USE

In an effort to encourage and normalize mixed-use development in planning and development practice, The Urban Land Institute (ULI) in its publication *The Mixed-Use Development Handbook* provides planners, developers, and architects alike with a thorough of description of how to effectively build and develop mixed-use projects. Interestingly, the ULI understanding of mixed-use is as a stand-alone development method, apart from the collective strategies outlined in the introductory section of this chapter. The book was published in 1987, and as a result of ULI's intense influence over development practice in the United States, it has become the de facto industry reference for mixed-use development.

ULI defines mixed-use as having:

1. Three or more significant revenue-producing uses (such as retail, office, residential, hotel/motel, entertainment/cultural/recreation) that in well-planned projects are mutually supporting;
2. Significant physical and functional integration of project components (and thus a relatively intensive use of land), including uninterrupted pedestrian connections; and
3. Development in conformance with a coherent plan (which frequently stipulates the type and scale of uses, permitted densities, and related items).[14]

While ULI's influence has created a standard for which a mixed-use project can aspire, is it concerning that ULI's definition and presentation of mixed-use is based solely on

[14] Schwanke, Dean. *Mixed-Use Development Handbook.* 1st ed. Community Builders Handbook Series. The Urban Land Institute, 1987, 3.

physical form and characteristics. Defining mixed-use in this manner unfortunately sets no benchmarks that a mixed-use project can aspire to achieve aside from having three significant uses. In regard to the evaluation of mixed-use projects and the development of policy and guidelines, this limited definition does a disservice.

Additionally, it is possible that the ULI definition could cause confusion: For example, how does one define a singular building containing two uses? According to ULI, this is not a mixed-use development because it does not contain three or more significant revenue-producing uses. Even if said development did contain the appropriate number of uses, is a singular building representative of a "relatively intensive use of land"? This is just one example of many types of development that, while having a mix of uses, do not meet the ULI definition of a mixed-use development (referred to by ULI as an MXD). Andy Coupland discusses this issue, and mentions a series of similar examples.[15] The *Mixed-Use Development Handbook* does attempt to shed some light on this debate by defining another type of development known as multi-use development. According to ULI, multi-use development is considered "a catch-all term describing any development that incorporates more than one significant use."[16] ULI also presents a third classification of development containing more than one use: duo-use development. This type of development "has much in common with MXD, and many of the planning principles used for one would be well suited for the other. The difference lies in the level of complexity and the synergy that can be achieved."[17]

---

15 Coupland, *Reclaiming the City*, 5-7.

16 Schwanke, *Mixed-Use Development Handbook*, 5

17 Schwanke, *Mixed-Use Development Handbook*, 6

ULI does not, however, discuss an additional form of development known as transit-oriented development (TOD). TODs, as defined by Belzer (2002), are "intense, comprehensive development around transit stations".[18] This definition does not explicitly state that a TOD must be mixed-use, however Belzer later implies that a mix of uses should be key characteristic of a TOD: "More intensive mixed-use development alone can allow an increase in walking and bicycling within the neighborhood; when a transit connection is added to the mix then auto-free travel to other parts of the metropolitan area become more feasible."[19] It is important to understand where TODs fit within the larger spectrum of mixed-use projects, and whether or not they warrant their own classification and definition, or fit within one of ULI's definitions. ULI classifies mixed-use projects based on their complexity. A well developed TOD might rank among some of the most complex forms of mixed-use projects, or it may just any type of development in proximity to a transit stop.

It seems clear that there is no particular consensus on what a mixed-use development entails, even according to ULI. Despite having clearly established different classifications of mixed-use development, ULI admittedly states that "drawing the line between duo-use developments and MXDs [can become] particularly difficult" and that "it is becoming increasingly difficult to distinguish mixed-use developments from the other forms of multi-use development".[20] Coupland comments on this issue as well, noting, "without definition, considerable confusion can be generated, mainly

---

[18] Belzer, Dena, and Gerald Autler. "Transit Oriented Development: Moving From Rhetoric To Reality." *The Brookings Institution Center on Urban and Metropolitan Policy* (2002): 1.
[19] Ibid
[20] Schwanke, *Mixed-Use Development Handbook*, 6

because the issue of scale can be crucial."[21]

Alan Rowley, at the University of Reading, agrees that "the concept of mixed-use development is ambiguous." He argues:

> The term *mixed-use development* is being used increasingly in planning, urban design and development but with very little precision. This ambiguity is dangerous. Schemes which offer few, if any, of the benefits associated with traditional mixed-use areas are, nevertheless, described as mixed-use developments. This debases the concept and risks reducing support for the idea. The term is used as a marketing slogan by some people and the concept is seen as a panacea by others.[22]

It could be concluded from Rowley's argument that mixed-use projects have the potential to offer advantages over other types of development. These advantages, however, are variable and are dependent on the "design and management"[23] of a project. This notion is concerning, especially due to the potential implications this might have on establishing a framework that planners can use to plan and develop mixed-use projects, or to develop policies to promote mixed-used . If there are varying forms, classifications, and qualities of mixed-use developments, then logically each of these developments should accomplish different things, or provide different outcomes. An inability to distinguish between the multiple types of mixed-use developments, or define them would almost certainly imply an inability to establish expected outcomes of these

---

[21] Coupland, *Reclaiming the City*, 5.
[22] Rowley, Alan. "Mixed-use Development: concept and realities." *The Cutting Edge* (1996): 3.
[23] Rowley, "Mixed-use Development", 2.

developments.

DEFINING MIXED-USE BY OUTCOMES

Belzer, though commenting specifically on transit-oriented developments, arrives at a similar conclusion: "One of the first things that becomes apparent with a scan of the literature and interviews is that there is no universally accepted premise about exactly what TOD should accomplish."[24] She argues that this is a result of an unclear definition of what a TOD is, stating that "Many projects that fail to provide the full range of synergies and benefits made possible by TOD are proclaimed successes because there is no standard benchmark for success. For example, some developments are labeled TOD by virtue of their proximity to a transit station, regardless of how well they capitalize on that proximity."[25] Belzer does not, however, specify what this "full range of synergies and benefits" includes. The City of Austin presents its own definition of TOD on its website. Contrary to what Belzer argues, this definition is through the framework of outcomes, not physical characteristics: "TOD is a way for Austin to make long-range coordinated transportation and land use decisions that will provide a variety of housing and mobility options and create active places where people can live, work, shop, interact and recreate."[26]

From this it can be argued that while there appears to remain some ambiguity over the concept of mixed-use development and what it should accomplish, there seems

---

[24] Belzer, Dena, and Gerald Autler. "Transit Oriented Development", 3.

[25] Ibid

[26] "City of Austin - Neighborhood Planning and Zoning: Transit-Oriented District." City of Austin - Austin City Connection: Home Page. http://www.ci.austin.tx.us/planning/tod/default.htm (accessed April 28, 2011).

to be very little contest that mixed-use development should accomplish *something* that single-use development cannot, and have some "synergy" that single-use developments do not. Coupland argues that there are three definite advantages of mixed-use, and three possible advantages of mixed-use:

Definite

1. Attractiveness and vitality—diversity; up to a 24 hour city;
2. Uses unwanted or obsolete property, including listed buildings;
3. Range of uses means greater likelihood of some parts letting

Possible

1. Reduction in travel (shorter trips, more multi-function) so reduced emissions;
2. Sustainability;
3. Reduction in crime; more activity; greater uses; observation of street[27]

ULI takes a strong stance in favor of mixed-use development as well, arguing that "[the] potential of mixed-use projects […] portends a little-remarked but momentous change in urban land use, with built environments becoming at once more efficient, enjoyable, and thus, increasingly relevant to human needs."[28] While this initial ULI publication notes that mixed-use is a not a panacea for solving all of modern cities' major problems, it does claim that mixed-use can:

1. Make significant contributions to municipal revenues,
2. Permit substantial savings in cost—economic, environmental, natural resource, and personal
3. Make the most of existing infrastructure and public building programs
4. Act as a tool to treat blight and decay, initially in the project itself and subsequently as catalysts for further development and
5. Providing a means for organizing metropolitan growth through creation of focal points of regional significance.[29]

---

27 Coupland, Reclaiming the City, 4.

28 Witherspoon, Robert E., John P. Abbett, and Robert M. Gladstone, *Mixed-Use Developments, 5.*

29 Witherspoon, Robert E., John P. Abbett, and Robert M. Gladstone, *Mixed-Use Developments, 14.*

Another common school of thought in regard to the potential benefits of mixed-use is that proper mixing of uses is one of the most effectual ways to create a sense of place, and thereby create community. Coupland summarizes this opinion: "a balanced mix of working, service and living activities provides a lively, stimulating and secure public realm, and by this means also promotes a sense of community within a neighbourhood"[30]. Another ULI publication echoes this thought by claiming that "creat[ing] an enduring and memorable public realm" is the first principle for developing a successful town center and urban village:

> A successful public realm is one in which commerce, social interaction, and leisure time activities mix easily in an attractive, pedestrian-friendly, outdoor setting. People are drawn by the simple enjoyment of being there. If that enjoyment is to be felt, the public realm and public space must be well designed and programmed.[31]

These statements beg the question: Can urban form influence social behavior? New Urbanists would argue that yes, physical form can influence social relationships by architecturally positioning people so that social interaction is likely, and a place-based identity is created.[32] The concept that physical form can influence behavior is also largely part of Jane Jacobs' argument for what is known as situational crime prevention: proper physical form and architecture can prevent crime by making it difficult to commit.

---

30 Coupland, *Reclaiming the City*, 152.
31 Gupta, Prema Katari, and Kathryn Terzano. "Development Principles." In *Creating Great Town Centers and Urban Villages*. Washington, DC: Urban Land Institute, 2008. 36.
32 Duany, Andres, Elizabeth Plater-Zyberk, and Jeff Speck, *Suburban Nation*.

> The basic requisite for such surveillance is a substantial quantity of stores and other public places sprinkled along the sidewalks of a district; enterprises and public places that are used by evening and night must be among them especially. Stores, bars and restaurants, as the chief examples, work in several different and complex ways to abet sidewalk safety.[33]

It seems odd that both professionals and academics alike seem unable to provide a clear definition of what mixed-use is, yet these same people are quite sure that mixed-use can offer advantages that single-use development cannot. However, there have not been prolific amounts of research done to truly evaluate, in a comprehensive way, whether or not mixed-use is capable of realizing these supposed advantages. Additionally, because mixed-use development is so often defined by its physical form (size, mix of uses, etc.), much of the discussion regarding whether or not a mixed-use development is successful is based solely on whether or not a project has met the basic criteria to be one. This represents a major gap in the understanding of mixed-use projects. The concepts of what a mixed-use project is and what one should accomplish are competing forces, when in fact some synergy should exist between them. Belzer offers a possible solution to this issue, that this paper uses as a model for discussion:

> Because most definitions of TOD focus on built form, many projects that are billed as successful transit-oriented development don't function very well. They may have overcome the main barriers to creating dense mixed-use development next to a transit station, but they fall short when measured by performance

[33] Jacobs, Jane. "The Death and Life of Great American Cities." In *The Blackwell City Reader*, 276. 2nd ed. Blackwell Publishing, 2010.

> rather than physical characteristics. A focus on outcomes allows a better benchmark of success and a better measure of the tradeoffs that most projects must make. It permits a subtler assessment of projects that judges them as more or less successful in different areas rather than simply built or not built.[34]

Her argument, while specific to TOD, could easily be applied to mixed-use developments. Instead of defining mixed-use developments as simply a development with a mix of uses, should one be defined and measured on what it accomplishes? Would changing the way mixed-use developments are defined bridge the gap between expected outcomes and realized outcomes? How, then, should these projects be measured? The next segment of this chapter describes Belzer's approach in great detail.

BELZER PRECEDENT STUDY

Belzer identified six performance areas that can be used to evaluate and understand the success of a transit-oriented development. Each performance group includes a subseries of criteria on which a project can be evaluated. For the evaluation chapter of this paper, Belzer's method was used to analyze the performance of the two case studies. The only variation will be the possible addition of performance criteria that were emphasized in the expert surveys, literature, focus groups, or interviews but not listed in any of Belzer's performance groups.

The six performance groups are location efficiency, value recapture, financial return, choice, livability, and efficient regional land use patterns. The remainder of this section will explain what each performance group means, and the expected outcomes of

[34] Belzer, Dena, and Gerald Autler. "Transit Oriented Development", 8.

a development that has achieved success in that particular performance group. Belzer does note that despite overlap between the six groups, it would be very unlikely for any development to be proficient in all six performance areas. Belzer states that typically, success in one performance group might come at the expense of success in another group.

Location efficiency: A transit-oriented development can be considered location efficient if it is able to transform auto usage from a necessity into a choice. Belzer, using supporting evidence from other studies, argues that auto-dependency can be reduced by an "effective blending of convenient and efficient transportation link (node functions) with enhancements of the ability to carry out most everyday tasks close to home (place functions)."[35] A truly location efficient transit-oriented development will encourage a reduction in auto-dependency by being accessible to transit, offering a mix of uses, residential density, and a design that supports walking. According to Belzer, the following is a list of outcomes that can be expected from a location efficient transit-oriented development:

- Increased mobility choices (walking and bicycling as well as transit).
- Increased transit ridership.
- Good transit connections to the rest of the city and region.
- Reduced auto use and reduced auto ownership.
- Reduced transportation costs to individuals and households.

---

[35] Belzer, Dena, and Gerald Autler. "Transit Oriented Development", 9.

- Sufficient retail development (quantity, quality, and diversity) in the TOD to satisfy the basic daily needs of residents and employees working in the area.
- Ability to live, work, and shop within the same neighborhood.

Value Recapture: Value recapture refers to the ability of residents and users of transit-oriented developments to save money on transportation costs. According to Belzer, recapturing value is a direct outcome of a location efficient development. This point can be effectively demonstrated through what is known as the location efficient mortgage—which allows homebuyers that choose to live in a location-efficient development to "borrow more money than they would qualify for under conventional mortgage lending practice", under the assumption that will a reduction in transportation costs will translate into more available money for housing.[36] A development that is effective at recapturing value will demonstrate the following:

- Increased homeownership rates or more adequate housing, especially among borderline income groups.
- Increased use of location efficient mortgages.
- Creation of housing units with lower-than-average parking ratios where the cost savings from parking reductions are passed on to consumers.
- Reduced individual and community spending on transportation and therefore greater discretionary individual and community spending.
- Utilization of existing infrastructure.

[36] Ibid

Livability: Livability is undoubtedly difficult to explicitly define. Similar to the concept of sense of place or community, a definition of livability could vary greatly from person to person. Belzer claims that "at its core, transit-oriented development strives to make places work well for people."[37] While this could imply a multitude of things, Belzer identifies a number of livability measures that could apply "directly or indirectly to transit-oriented development:

- Improved air quality and gasoline consumption.
- Increased mobility choices (pedestrian friendliness, access to public transportation).
- Decreased congestion/commute burden.
- Improved access to retail, services, recreational, and cultural opportunities.
- Improved access to public spaces, including parks and plazas.
- Better health and public safety (pollution-related illnesses, traffic accidents).
- Better economic health (income, employment).

Financial Return: As most transit-oriented development projects consist of both public and private developments and investments, it is important to analyze the return to both the public and the private sector when evaluating financial return. Like value recapture, a high financial return to both sectors is a direct outcome of location efficiency. However, to realize this potential, many TOD projects "require more

[37] Belzer, Dena, and Gerald Autler. "Transit Oriented Development", 12.

complex financing strategies", and patience on the side of public sector. Belzer notes, however, "these actors should not necessarily define return in the narrow financial sense. Although all public investments should be justifiable, that justification can be based as much on notions of social return (greater equity, better affordable housing, better quality of life) as on financial return."[38] Regardless, in terms of financial return, players should expect the following from a successful transit-oriented development:

- For local governments: higher tax revenues from increased retail sales and property values.
- For the transit agency: increased fare box revenues and potential ground lease and other joint development revenues.
- For the developer: higher return on investment.
- For employers: shorter and more predictable commute times, easier employee access.
- A balance between financial return and other goals of TOD so that projects are not judged purely on their monetary return.

Choice: Belzer argues that a reliable proxy measure of a "good place includes the notion of choice."[39] She defies claims that transit-oriented developments "'force' people to live in high-density apartments and take transit." Belzer's theory is that a transit-oriented development should be defined and measured by function and not by form, implying that "no particular housing type needs to dominate TOD projects." A

[38] Belzer, Dena, and Gerald Autler. "Transit Oriented Development", 14.
[39] Ibid

successful transit-oriented development will offer choice in housing, transportation, and shopping options to *supplement* the existing market. A development effective at providing choice might demonstrate the following outcomes:

- A diversity of housing types that reflects the regional mix of incomes and family structures.
- A greater range of affordable housing options.
- A diversity of retail types. Diversity will necessarily be limited by the market area and the particular desires of the residents.
- A balance of transportation choices.

Efficient Regional Land Use Patterns: Efficient regional land control can be accomplished partially through transit-oriented development "when a significant number of origins and destinations in the region are well-linked to a station."[40] Belzer argues "the more growth that can be accommodated in station areas, the less sprawl will be the automatic result of growth." This performance group is closely related the ideology behind Smart Growth and New Urbanism. A region that is effectively coordinating growth planning and encouraging the development of nodes connected by transit might demonstrate the following:

- Less loss of farmland and open space.
- More suitable regional and subregional balance between jobs and housing.
- Shorter commutes.

[40] Belzer, Dena, and Gerald Autler. "Transit Oriented Development", 16.

- Less traffic and air pollution.
- Station areas as that can serve as destinations as well as origins.

CONCLUSIONS

The broad picture of literature, in regard to mixed-use development, appears to be divided into three categories: 1) "Manuals" that define and explain mixed-use, and also delineate specific processes for building and designing mixed-use projects; 2) proponents of mixed-use developments, that express a great need for mixed-use in current community development practices; and 3) analyses of whether or not mixed-use developments are able to achieve certain beneficial outcomes that single-use developments cannot.

It is important to note that when evaluating mixed-use projects the literature is firmly planted in the time after a project's completion. Belzer's method for evaluation studies only what has been built, and makes an assessment based on that information. Belzer's method does not take into account the processes of development that lead to a completed project. Analyzing whether or not a project is successful can be done without looking historically at the project's conceptualization, evolution, and development. However this approach may be flawed because it is incomplete. Belzer's method only offers an answer to a yes or nor question after all key commitments have been made or not made: Is a development successful or not? It does not provide reasons how or why—an understanding of which is crucial to building better mixed-use developments in the future and better preparing developers for the obstacles that will be

encountered. It can be argued that drawing conclusions about the effectiveness of mixed-use as tool for solving urban (and suburban) problems without a full and comprehensive understanding of the history behind the project will lead to short sighted or ill-advised policy solutions.

CHAPTER 3: MIDTOWN COMMONS

REGULATORY ENVIRONMENT

Midtown Commons is a 75-acre urban infill site located at the intersection of Lamar Boulevard and Airport Boulevard in Austin, Texas. The project is considered by both the city of Austin and its designers to be a transit oriented development (TOD), as the project is immediately adjacent to a Capital Metro commuter rail stop, bus stops, and two major roadways. The project is also on a bike lane. According to the City of Austin, a TOD is defined as:

> the functional integration of land use and transit through the creation of compact, walkable, mixed-use communities within ¼ to ½ mile of a transit stop or station. A TOD brings together people, jobs, and services and is designed in a way that makes it efficient, safe, and convenient to travel on foot or by bicycle, transit, or car.[41]

As described in the TOD ordinance adopted on May 19, 2005, each TOD district undergoes a two-phase planning approach:

> During Phase I, TOD District boundaries are established; a TOD classification is identified; gateway, midway and transition zones are designated; and interim regulations affecting such issues as land use, parking and building setbacks are applied to the properties within TOD district boundaries to set the stage for

[41] "City of Austin - Neighborhood Planning and Zoning: Transit-Oriented District", n.d. http://www.ci.austin.tx.us/planning/tod/what_is_tod.htm.

transit-oriented development patterns prior to the development on a SAP (refer to "Interim Regulations" page for further details).

During Phase II, a Station Area Plan (SAP) is created to establish regulations and incentives for a particular TOD District that aim to achieve generally accepted transit-oriented development patterns and design characteristics. The SAP will also include a housing affordability analysis and feasibility study that describes strategies for achieving the affordability goals in the TOD Ordinance.[42]

In February of 2007, the City of Austin's Neighborhood Planning & Zoning department hired a consultant, PB Placemaking, to initiate the Station Area Planning process for three districts along the future Capital Metro Red Line (the rail line began service operations on March 22, 2010): Lamar Boulevard/Justin Lane, MLK Jr. Boulevard, and Plaza Saltillo. According to the City of Austin, "the consultants led an extensive public involvement process for each planning area over a two year period, including holding several public meetings to get community input and feedback on the direction of the plans, and conducting presentations for Planning Commission and City Council public hearings."[43] Midtown Commons is located within the Lamar Boulevard/Justin Lane TOD district, depicted in Illustration 3.1. Midtown Commons

[42] "City of Austin - Neighborhood Planning and Zoning: Transit-Oriented District", n.d. http://www.ci.austin.tx.us/planning/tod/background.htm.

[43] "City of Austin - Neighborhood Planning and Zoning: Transit-Oriented District", n.d. http://www.ci.austin.tx.us/planning/tod/what_is_tod.htm.

is positioned both in the "gateway zone" and in the "midway zone". Phase II of the development, yet to be built, will be located within the "transition zone".

Subsequent to the implementation of the TOD ordinance, the City of Austin amended the Land Development Code to include what is known as Design Standards and Mixed Use Subchapter E (also known as Commercial Design Standards). The new code was adopted on August 31, 2006 and put into effect on January 13, 2007.

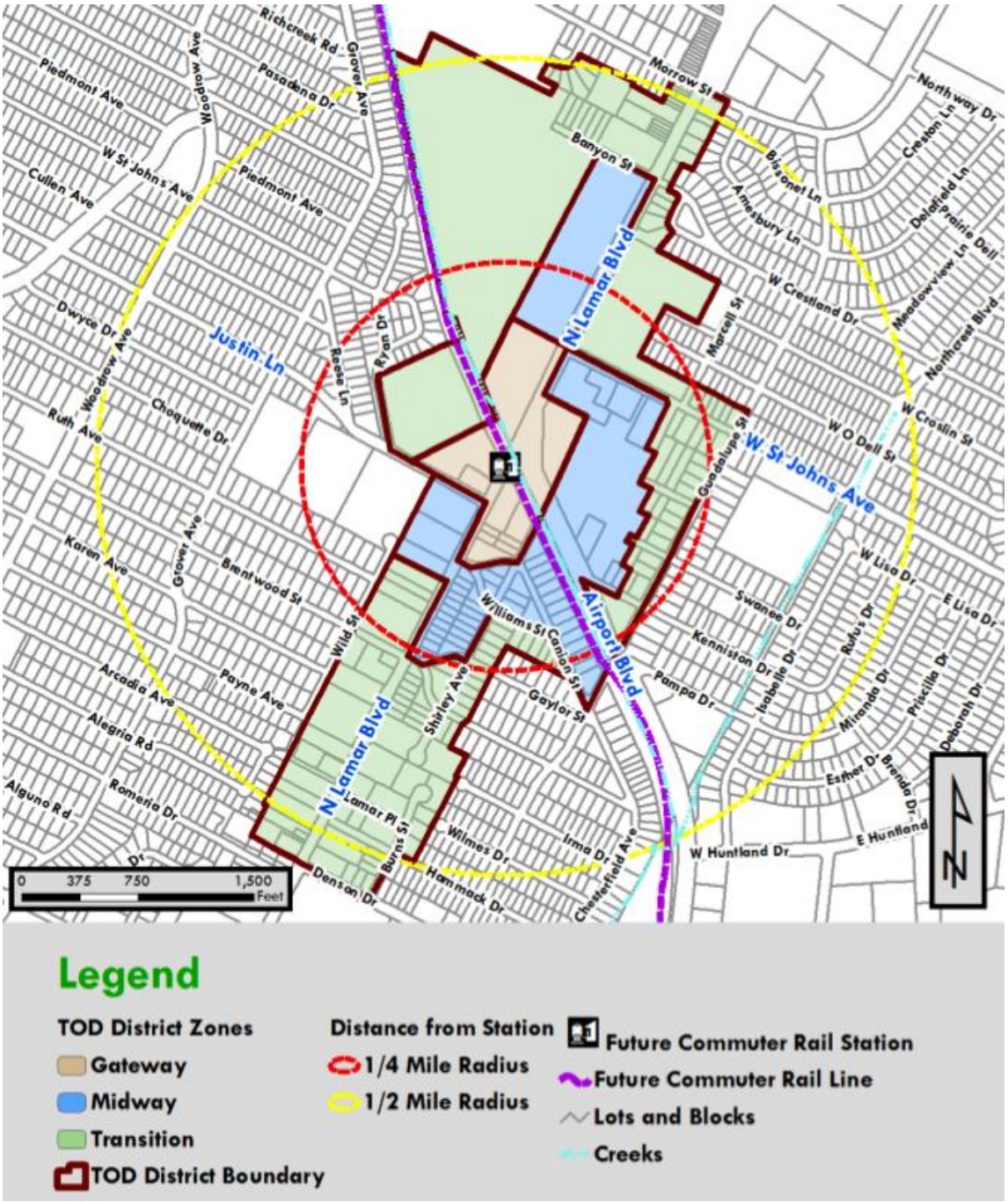


Illustration 3.1 City of Austin TOD Map

BACKGROUND INFORMATION AND PROJECT HISTORY

The Midtown Commons project was initiated just before the adoption of the TOD ordinance. The site, formerly a petrochemical research facility, was purchased in a joint venture between two development firms, Stratus Properties and Trammell Crow. Status Properties specializes in single-family development, while Trammell Crow has a special division focused on high-density urban reuse. It was expected that Trammell Crow would be responsible for the development of any multi-family or commercial and Stratus Properties would handle the development of any single-family. At the time of purchase the site was primarily vacant with some industrial buildings and recreational fields present. Because the site had operated as a petrochemical research facility for fifty years, it was considered a brownfield and would require remediation. However, the previous owner was unaware of the extent of contamination. Because the previous owner was unwilling to allow any investigation prior to purchase, any prospective developer was subject to a high level of risk. In order to help alleviate this risk, Trammell Crow/Stratus Properties contracted with environmental firm, Westin Solutions, to conduct the contamination investigation and site remediation. Westin became responsible for all demolition and remediation, and assumed any environmental liability. With this reduction in liability came a high price, substantially increasing the basic land cost for Trammell Crow/Stratus Properties.

Investigation, demolition, and remediation took roughly two years to complete. A private sector representative noted "it probably took about a year to do the work, and then about a year to do the paperwork. [...] All of this was [part of] TCEQ's

voluntary cleanup program. We were going through all that, and it really gave us time to massage the design."[44] During this time, the City of Austin engaged in what is known as a joint development agreement with the developer. This agreement resulted in extensive collaboration and compromise between the developers, Capital Metro, the City of Austin's Planning and Development Review and Public Works departments in regard to building and designing the necessary infrastructure. Because of the changing regulatory environment at the time of the project's conceptualization, an effective public/private partnership was necessary to help expedite the approval process. Midtown Commons was one of the first major urban infill projects to be developed since the inauguration of the TOD ordinance and the Subchapter E guidelines; therefore neither party was familiar with how to effectively work within the regulatory boundaries imposed by the new ordinances. Effectively implementing the Midtown Commons project was an experimental process for both the City of Austin and the developers. This process helped identify conflicts and issues between the parties that encouraged changes to the TOD ordinance, in the hopes that future TOD development would be easier. At the December 2010 focus group session for Midtown Commons, a public sector representative noted that "[there were] a number of different regulatory changes in [the Midtown Commons] area over the last five years, and this development initially started before any of [them]. [...] We've already had some lessons learned from those regulations that have been adjusted for future developments."[45]

---

[44] Private Sector Representative. "Confidential Interview." Face-to-Face, March 2011.

[45] Public Sector Representatives. "Confidential Midtown Commons Group Interview." Face-to-Face, December 3, 2010.

As an example of the type of conflicts that arose during the design and construction processes, Subchapter E requires that commercial buildings must be built to the sidewalk, with no parking in the front of the building. A private sector representative described the purpose of these guidelines as "[constraining] the whole pedestrian/bicycle experience between the buildings and the road. What the code required was that [developers] pull those buildings all the way up to the property line; the intent being to pull the traffic inside the development."[46] The exact language found in the Subchapter E Commercial Design Standards is as follows:

> Notwithstanding the minimum setback requirements of the base zoning districts, at least 75 percent of the net frontage length of the property along the Core Transit Corridor must consist of continuous building façade built up to the clear zone, or the supplemental zone if one is provided. [47]

[46] Private Sector Representative. "Confidential Interview." Face-to-Face, March 2011.
[47] City of Austin. SUBCHAPTER E: DESIGN STANDARDS AND MIXED USE, August 2006.

Illustration 3.2 is a graphic taken from Subchapter E, depicting the required relationship between the building and the street in a core transit area. Because the timing of Subchapter E's adoption and the planning and designing of the project coincided, the developers were unaware of this requirement.

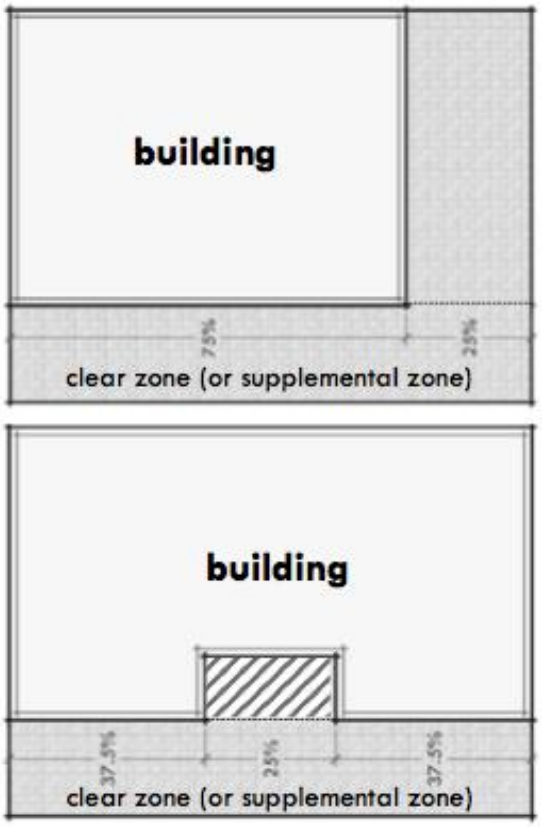


Figure 16: Examples of permitted building placement along core transit corridors. Parking is not permitted in the hatched area between the street-facing facade and the sidewalk.

Illustration 3.2 Commercial Design Standards- Building Frontages

According to a March 2011 interview with a private sector representative, the initial site plan submitted to the City of Austin (finalized near the end of

2005/beginning of 2006) included a bay of parking, referred to as "teaser parking", in the front of the commercial buildings along Lamar. The interviewee noted, "[the] original site plan had the buildings you see there today, but they were moved fifty feet back from the street." The adoption of Subchapter E, which took place during the two years that the developers were awaiting the completion of the site remediation, required that the developers alter the design of the project. The interviewee stated, "Well that hit us hard, but it was a short battle, and I think it was easy from [the City of Austin's] standpoint because [we didn't] comply with Subchapter E."[48]

Similar compromises took place throughout the design and implementation process, including compromises between different City of Austin programs and departments. Specifically, public sector representatives that attended the focus groups discussed the conflict between existing right-of-way requirements designed to accommodate potential future roadway expansion, the on-going Bicycle Master Plan, and the impact these regulations would have on the design. As stated by a focus group attendee, regulations need to be adjusted "on a site plan by site plan basis, [to] see where the City's priorities are at the time."[49] Flexibility, collaboration, and compromise were necessary to develop a solution that met the needs of all parties. As another example, it was discovered near the end of the construction process that a previously unnoticed traffic light pole was located in the center of the proposed entranceway to the development. At that stage in the construction process, there were eight months remaining before the development was intended to open. Accommodations and

[48] Private Sector Representative. "Confidential Interview." Face-to-Face, March 2011.

[49] Public Sector Representatives. "Confidential Midtown Commons Group Interview." Face-to-Face, December 3, 2010.

compromises were necessary by both the City of Austin and the developer to find a timely solution, resulting in a slight alteration of the entranceway and the movement of the traffic light pole.

Aside from these situations, however, many of the intended design characteristics were realized. An illustrative site plan for Midtown Commons project as of April 2011 can be seen in Illustration 3.3. This image depicts what has been planned for both phases of development.

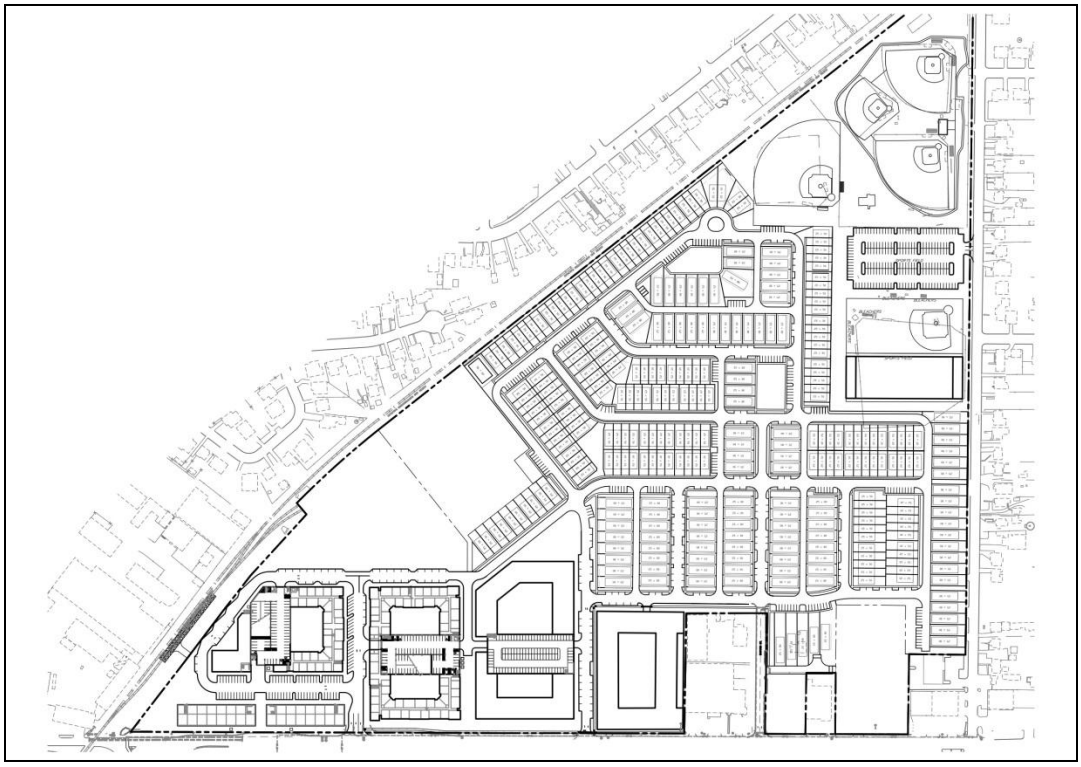


Illustration 3.3 Midtown Commons Site Plan

As of April 2011, Midtown Commons had 316 residential units including lofts, live/work studios, one-bedroom units, and two bedroom units, with fourteen available floor plans. At that time detached single-family residential units had not been constructed, nor had the City of Austin's Planning and Development Review department approved a site plan for such development. However, Image 3.3 does include a depiction of the expected proposed single-family residential. While detached single-family residential has been planned as part of the second phase of development, market conditions have slowed the planning and construction processes for Phase II. The apartments, excluding the live/work studios, leased within the first year of

operation. Though some of the live/work studios are occupied, they are used primarily as office spaces only. None of them have leased as both a living and a working space.

COMMERCIAL USES

Commercial uses at Midtown Common as of April 2011 consist of a brewery cooperative, and some office uses. No shops/stores are present. Much of the commercial space remains unoccupied. Of the 64,000 square feet of available commercial space, 14,000-15,000 square feet have been leased, which is slightly less than a 25% occupancy rate. Low commercial occupancy can be attributed to factors including the location of parking, architectural design, local and national market conditions, and the commercial uses in the surrounding neighborhood. An interview with a private sector representative of Midtown Commons revealed that many prospective lessees are concerned about the location of the parking. Commercial space at Midtown Commons, as depicted in the site plan, is located along Lamar Boulevard, a major arterial. Parking for this commercial space is located in the rear of the building, and the perception among potential retailers is that drivers on Lamar Boulevard will not stop because the location of parking is not immediately evident. In the same interview, it was also mentioned that the area lacks a major retail center such an HEB store, or a Target store, etc. These types of retail centers, "power centers", serve as commercial anchors for a neighborhood and are able to attract smaller commercial uses. The interviewee suggested that the presence of a retail center of this sort might spur commercial leasing at Midtown Commons.

It is important to note, however, that while commercial leasing has been slower than initially expected, this is partially purposeful. The developers are pursuing specific types of commercial uses in order to facilitate place making, and to ensure that the project "feel[s] a certain way".[50] It was expressed in both interviews and focus groups that achieving the right mix of commercial uses was necessary to avoid jeopardizing the integrity of the project.

TRANSPORTATION OPTIONS

A Capital Metro rail stop, known as Crestview Station, is located immediately south of the property. However, while Midtown Commons was open for occupancy in 2009, the MetroRail did not commence operations until January 22, 2010. As of April 2011, the MetroRail operations were Monday through Friday, with southbound operations beginning at 5:50AM. In the evening, the final northbound departure from downtown Austin is at 6:24PM. During peak AM travel times the MetroRail departs from Crestview station toward downtown every 30-35 minutes. After rush hour the MetroRail departs Crestview station once an hour.

As demonstrated in Illustration 3.4, Midtown Commons is positioned in close proximity to major arterials and freeways including Mopac Expressway (Loop 1), and Interstate Highway-35, a primary travel route between Austin, San Marcos, and San Antonio. Its central location makes it easy accessible by car. The site is also positioned on a primary bus route.

---

[50] Private Sector Representative. "Confidential Interview." Face-to-Face, March 2011.

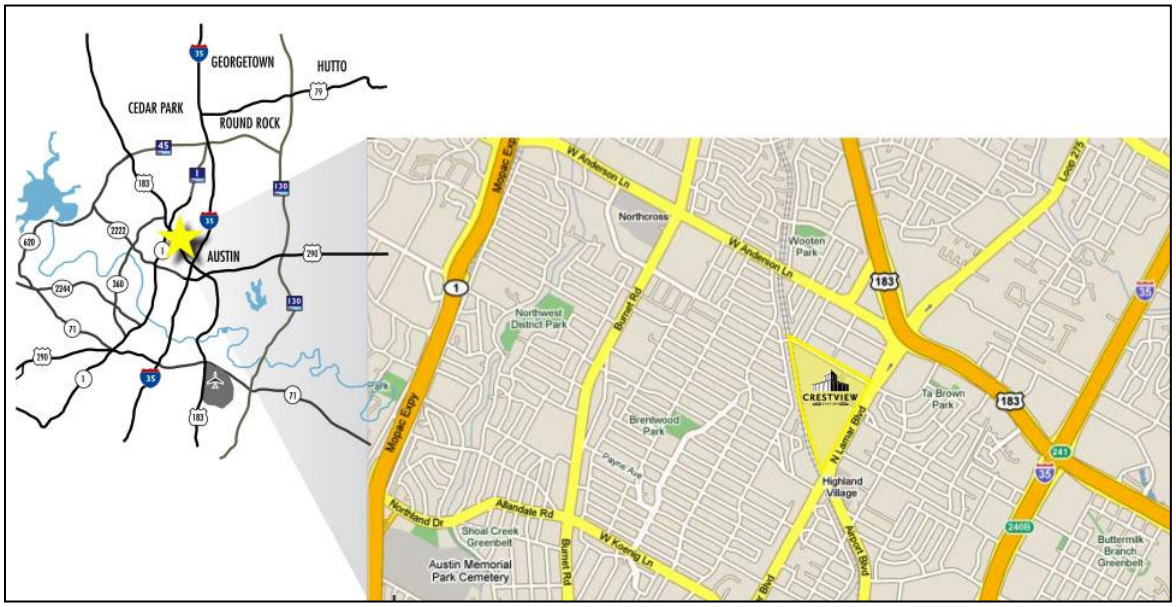


Illustration 3.4 Midtown Commons Context Map

Part of the design and approval process for Midtown Commons included the installation of a bike lane along Lamar Boulevard for the length of the site. This is approximately .25 miles long, which despite being a relatively short length, is anticipated to be a model for future bike facilities along Lamar Boulevard.

CHAPTER 4: CEDAR PARK TOWN CENTER

Cedar Park Town Center is currently a single-family development, with planned, but not yet built commercial space. It was built with New Urbanist concepts in mind, and was planned to serve as Cedar Park's downtown/mixed-use center.

REGULATORY ENVIRONMENT

Cedar Park is a city located just north of Austin, Texas in Williamson County. It is primarily a residential city, with commercial uses concentrated along highways.

The town, lacking a definitive center, or "heart", was seeking a development to fulfill this need. In order to help guide the creation of a downtown district, the City of Cedar Park approved a master plan in 1998 that emphasized economic viability, a diversity of housing types, and the development of a town center. According to the City of Cedar Park, "since the mid-1980's, citizens and developers have recognized the need for a planned town center area. Fortunately, almost as a quirk in the development pattern of the City, an undeveloped 400+ acre tract still remains in the heart of the City." The City's plan, in favor of the creation of a town center, states the following:

> Some advantages to creating a town center include . . . a higher tax base and the creation of a sense of place. Concepts should be included that address: pedestrian-oriented design; shared parking; special parking requirements to

increase density; shared storm detention; connection to Cedar Park's hike / bike system and green-way system; and a healthy, long lasting mix of land uses.[51]

Subsequent to the creation of the master plan was the adoption of the Cedar Park Town Center Regulating Plan and Urban Code. This code required that the Cedar Park Town Center be a Traditional Neighborhood Development. This form-based code delineated standards and requirements for building frontages, types of buildings, easements, streetscapes, etc. The purpose of the code was to promote walkability, sustainability, and sense of place and community, among other things.

The tract of land referred to above (referred to initially as Windsor Crossing), is located in central Cedar Park (north of FM 1431 at Discovery Blvd. and at the future intersection of US 183A)[52]. This piece of land was initially zoned for light industrial use. The property was once owned by Texas Commerce Bank, but sold to a development firm known as V-S Cedar Park in 1994. V-S Cedar Park, seeking to find an economically productive use for the 479-acre piece of land, wanted to have the land rezoned to single-family residential. The City, however, was hesitant due to a large amount of single-family subdivisions already existing in the area. Planners for the City were more interested with the idea of using this area for Cedar Park's downtown or "heart" rather than additional single-family subdivision.

---

51 "City of Cedar Park - Comprehensive Plan Update." City of Cedar Park - Home. http://www.cedarparktx.us/cp/comp_plan.aspx (accessed May 3, 2011).

52 "City of Cedar Park - Cedar Park Town Center." City of Cedar Park - Home. http://www.ci.cedar-park.tx.us/cp/page285299.aspx (accessed May 3, 2011)

With this goal in mind, in the late 1990s the City initiated a design competition between the tract of land that would eventually become the Cedar Park Town Center (referred to as Windsor Crossing), and a nearby tract of land (referred to as Quest). Both pieces of land had been identified in the master plan as potential sites for the future town center because of their visibility from and proximity to major highways. Additionally neither piece of land was developed. Windsor Crossing had a slight advantage in that the future Capital Metro Red Line (the same rail line running adjacent to Midtown Commons), ran along the western edge of the property. The City of Cedar Park did not opt, however, to become a part of Capital Metro. Therefore, despite the site's proximity to the rail line, a station was never installed.

The winner of the design competition would be selected as the Cedar Park Town Center, which was a good incentive for developers seeking enhanced value to their property. The landowners hired Land Design Studio to handle the design work. The plan developed by Land Design Studio, however, was substantially different than the plan that was eventually implemented. This initial plan was highly New Urbanist in style. It featured a strict grid pattern, variable lot sizes, and density. It can be seen in Illustration 4.1. However, when the eventual homebuilders, DR Horton, got involved, they hired their own land planner who altered the design substantially.

TBG, a landscape architecture and planning firm, produced the plan depicted in Illustration 4.2. This illustrative master plan is part of the regulating plan for the Cedar Park Town Center that was adopted on December 14, 2001.

Illustration 4.1 Original Master Plan

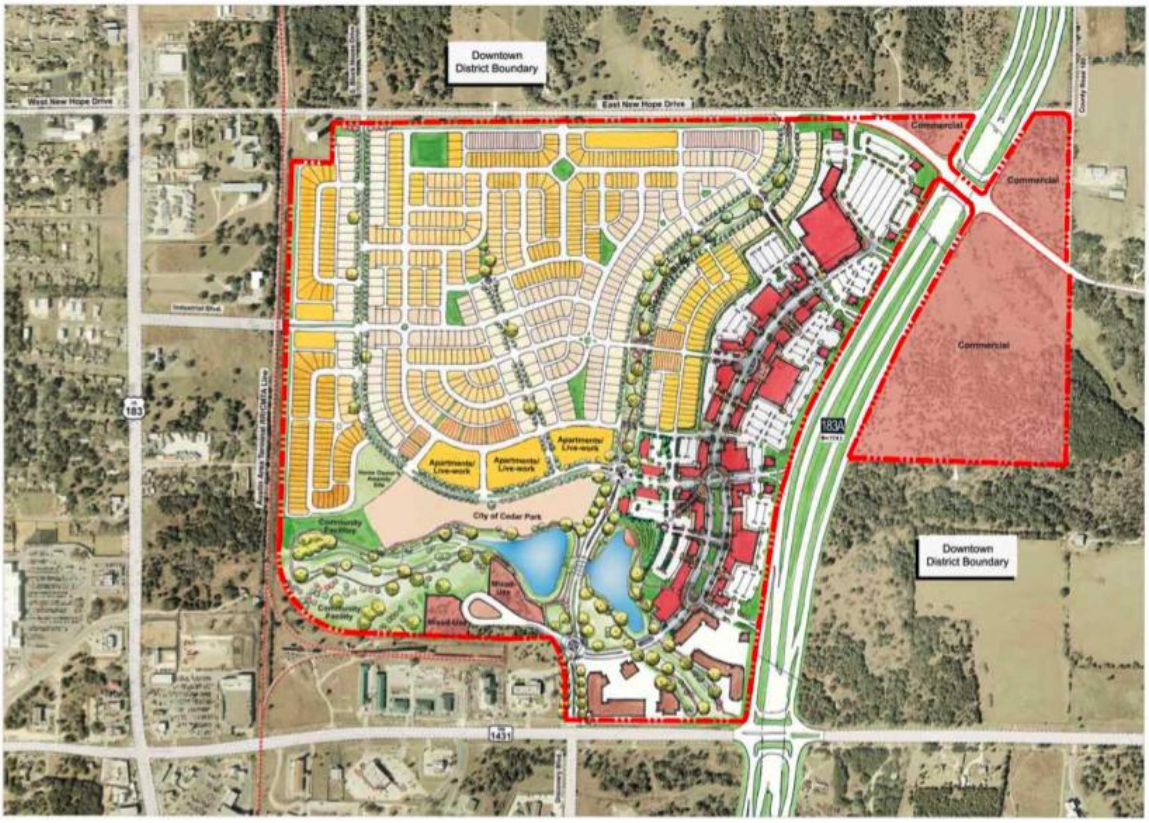


Illustration 4.2 TBG Master Plan

In 2002, V-S Cedar Park sold 240 acres of the tract to a development group known as Milburn Homes. V-S Cedar Park maintained ownership of roughly 108 acres, on the eastern edge of the site that would be used for civic and commercial buildings.

RESIDENTIAL USES

As of April 2011, the residential uses at the Cedar Park Town Center are all single-family detached homes. DR Horton, who at the project's initiation identified itself as strictly a homebuilder, was concerned about the marketability of a true New

Urbanist development in a suburban area. This, coupled with inexperience in building this type of project, prompted the change in design to something more consistent with their practice and experience in building suburban housing developments. This is not to say, however, that many components of a New Urbanist development were not incorporated. DR Horton designed the homes so that garages faced alleys, setbacks were smaller, and all the streets were built with sidewalks and street trees.

There are three series of homes available at Cedar Park Town Center: The Garden Home Series, the Classic Home Series, and the Villa Home Series. According to the development's HOA website, homes range in size from 1,300 square feet to 2,389 square feet. Prices for homes in the Cedar Park Town Center start at roughly $150,000.

COMMERCIAL USES

No commercial uses had been constructed at the Cedar Park Town Center as of April 2011.

TRANSPORTATION OPTIONS

No public transportation uses were available at the Cedar Park Town Center as of April 2011. This is mostly a result of the City of Cedar Park's refusal to become a member of Capital Metro, despite immediate adjacency to the rail line.

CHAPTER 5: METHODOLOGY AND CRITERIA DEVELOPMENT

As stated in the introductory chapter, two of my research purposes are 1) to gain an understanding of the development processes that occurred in the mixed-use development projects Midtown Commons and Cedar Park Town Center and to understand how these processes impacted the success of the two projects, and 2) to evaluate whether or not these mixed-use developments are "successful".

To develop an understanding of the Midtown Commons and Cedar Park Town Center projects, the research team conducted a thorough and comprehensive case study analysis. The methodology for the case study analyses included two focus group sessions, individual interviews with players and project participants, site visits and observation. All of these methods were necessary to gain a thorough understanding of the development processes behind each project, and how these development processes impacted the projects' success.

To evaluate the two developments I followed the method described in Belzer's study. Belzer outlined six performance groups and listed within each area a series of sub-criteria that can be used to evaluate each project. To supplement and adapt Belzer's method to be more applicable to the case studies I relied on data from three other sources: 1) a survey geared to individuals who are "experts" in the field of the mixed-use development in Austin, TX; 2) themes from other relevant literature, and 3) themes from the focus groups and individual interviews which were conducted as a part of this research.

CASE STUDY ANALYSIS

Focus groups were an integral part of the case study analysis. These were a collaborative effort by all members of the research team. A focus group was planned for participants of each project with support from the staff of Envision Central Texas. The purpose of each meeting was twofold. Firstly, and most obviously, the research team was aiming to uncover basic factual information about each project and elicit the participants' opinions on the goals and purposes of each project. It was possible that this information could have been gathered via individual interviews, but it was very important to the research team that we provided a venue for group interaction and discussion. Inherent in group interactions are differences of opinions and viewpoints. It was our assumption that this type of moderated group environment would be more conducive to lively discussion and would foster more continuous and open dialogue, thus leading to better and more thorough data collection.

A general outline of questions and discussion topics was written prior to the sessions. Amy Jones acted as the moderator for each meeting. The focus groups began with "round robin" style question and answering. This allowed participants to get to know each other, and provided the research team with an understanding of who was present and what their roles were. Following the initial question and answer format, Jones asked a series of open ended questions intended to spur conversation, discussion, or debate. This format created opportunity for my co-investigators and I to ask pertinent questions when the topic at hand was coming to a close, and Jones' moderation kept the conversation on track to ensure our data collection goals were

achieved. The focus groups also provided a venue to observe interaction between stakeholders and players. The Midtown Commons focus group had four participants, and the Cedar Park Town Center session had six.

Observation was another method of data collection. One cannot fully understand many aspects of a project without seeing it and experiencing it in person. This is especially true when trying to evaluate subjective and intangible characteristics of a development such as sense of place, sense of security, and architectural beauty. These characteristics are better understood through firsthand experience than through description.

Individual interviews with key players in both developments were crucial in developing an understanding of the processes behind each project. The members of the research team conducted these interviews individually or in a team of two. All interview data was shared between the four co-investigators. Interviews were scheduled as follow-ups to the focus groups, and additional interview subjects were found through the "snowball" method. Interview sessions took place over a three-month period between December, 2010 and March, 2011.

The research team was sure to maintain confidentiality throughout the research and writing process. Any contributor to these focus groups and interviews that is quoted or discussed is referred to as a "public sector representative" or "private sector representative" to maintain confidentiality.

CRITERIA DEVELOPMENT

To evaluate the two case study projects, I generally followed the same method as described by Belzer. While her evaluation method is specific to transit-oriented developments, there is sufficient similarity between transit-oriented development and mixed-use development (with the obvious difference being proximity to transit) to use it to evaluate Cedar Park Town Center, with slight adaptation.

The surveys, focus groups, and literature were used to supplement the performance criteria described in Belzer's study—though Belzer's list of performance categories was so comprehensive that only one criterion was added from the surveys/literature that was not included in Belzer's scope. Table 5.1 shows the list of performance groups, sub-criteria, and source.

	Performance Criteria	Belzer	Surveys and literature	Focus Groups /Interviews
Location Efficiency	Increased mobility choices (walking and bicycling as well as transit).	x	x	x
	Increased transit ridership.	x	x	x
	Good transit connections to the rest of the city and region.	x	x	x
	Reduced auto use and reduced auto ownership.	x	x	x
	Reduced transportation costs to individuals and households.	x	x	x
	Sufficient retail development (quantity, quality, and diversity) to satisfy the basic daily needs of residents and employees working in the area.	x	x	x
	Ability to live, work, and shop within the same neighborhood.	x	x	x
Value Recapture	Increased homeownership rates or more adequate housing, especially among borderline income groups.	x		
	Increased use of location efficient mortgages.	x		
	Creation of housing units with lower-than-average parking ratios where the cost savings from parking reductions are passed on to consumers.	x		
	Reduced individual and community spending on transportation and therefore greater discretionary individual and community spending.	x	x	x
	Utilization of existing infrastructure.		x	
Financial Return	For local governments: higher tax revenues from increased retail sales and property values.	x	x	
	For the transit agency: increased fare box revenues and potential ground lease and other joint development revenues.	x		x
	For the developer: higher return on investment.	x	x	x
	For employers: shorter and more predictable commute times, easier employee access.	x	x	
	A balance between financial return and other goals of TOD so that projects are not judged purely on their monetary return.	x		x
Choice	A diversity of housing types that reflects the regional mix of incomes and family structures.	x	x	x
	A greater range of affordable housing options.	x	x	x
	A diversity of retail types. Diversity will necessarily be limited by the market area and the particular desires of the residents.	x	x	x
	A balance of transportation choices.	x	x	x
Livability	Improved air quality and reduced gasoline consumption.	x	x	
	Increased mobility choices (pedestrian friendliness, access to public transportation).	x	x	x
	Decreased congestion/commute burden.	x	x	
	Improved access to retail, services, recreational, and cultural opportunities.	x	x	x
	Improved access to public spaces, including parks and plazas.	x	x	
	Better health and public safety (pollution-related illnesses, traffic accidents).	x		
	Better economic health (income, employment).	x		
Efficient Regional Land Use Patterns	Less loss of farmland and open space.	x	x	
	More suitable regional and subregional balance between jobs and housing.	x		
	Shorter commutes.	x	x	x
	Less traffic and air pollution.	x	x	x
	Station areas as that can serve as destinations as well as origins.	x	x	x

Table 5.1 Performance Criteria and Source

CRITERIA ANALYSIS

Table 5.2 lists the performance criteria along the measurement technique used: observation (O), analysis of interviews and focus groups (A), surveys (S), or GIS mapping (G).

EVALUATION METHOD

In an effort to provide some assessment for each criterion, a "score" was applied. The "score" ranged from 0 to 3, where 0 meant that the criterion could never be met or was not applicable, 1 meant that the criterion could possibly be met in the future, but was not met right now, 2 meant that criterion was somewhat met, and 3 meant that the criterion was fully met. This scoring system was not meant to provide a definitive grade for each of the development, but instead is designed to provide a measurement that can be reevaluated in the future, to track progress of the development.

	Performance Criteria	Measurement Technique
Location Efficiency	Increased mobility choices (walking and bicycling as well as transit).	O
	Increased transit ridership.	A
	Good transit connections to the rest of the city and region.	O
	Reduced auto use and reduced auto ownership.	A, S
	Reduced transportation costs to individuals and households.	A, S
	Sufficient retail development (quantity, quality, and diversity) to satisfy the basic daily needs of residents and employees working in the area.	O
	Ability to live, work, and shop within the same neighborhood.	O
Value Recapture	Increased homeownership rates or more adequate housing, especially among borderline income groups.	A, S
	Increased use of location efficient mortgages.	A, S
	Creation of housing units with lower-than-average parking ratios where the cost savings from parking reductions are passed on to consumers.	A
	Reduced individual and community spending on transportation and therefore greater discretionary individual and community spending.	A
	Utilization of existing infrastructure.	A
Financial Return	For local governments: higher tax revenues from increased retail sales and property values.	A, G
	For the transit agency: increased fare box revenues and potential ground lease and other joint development revenues.	A
	For the developer: higher return on investment.	A
	For employers: shorter and more predictable commute times, easier employee access.	A, S
	A balance between financial return and other goals of TOD so that projects are not judged purely on their monetary return.	A, S
Choice	A diversity of housing types that reflects the regional mix of incomes and family structures.	O
	A greater range of affordable housing options.	O, A
	A diversity of retail types. Diversity will necessarily be limited by the market area and the particular desires of the residents.	O
	A balance of transportation choices.	O
Livability	Improved air quality and gasoline consumption.	
	Increased mobility choices (pedestrian friendliness, access to public transportation).	O
	Decreased congestion/commute burden.	O, A
	Improved access to retail, services, recreational, and cultural opportunities.	O
	Improved access to public spaces, including parks and plazas.	O
	Better health and public safety (pollution-related illnesses, traffic accidents).	
	Better economic health (income, employment).	O, A
Efficient Regional Land Use Patterns	Less loss of farmland and open space.	G
	More suitable regional and subregional balance between jobs and housing.	G
	Shorter commutes.	A, S
	Less traffic and air pollution.	
	Station areas as that can serve as destinations as well as origins.	O, A

Table 5.2 Performance Criteria and Measurement Method

SURVEYS

The surveys were used to understand what professionals in Austin consider to be the benefits of mixed-use development, and what factors determine the success of a mixed-use development. I chose to use surveying versus individual interviewing for this aspect of the project was because I wanted the data to be easily quantifiable. I was specifically looking for key words and ideas that could be coded and analyzed statistically; I was looking for trends and patterns among responses. For these reasons, multiple choice type questions were more appropriate than open-ended questions typically asked in interviews.

The surveys were administered to local individuals that have had extensive experience related to the conceptualization, construction, or financing of mixed-use development projects. These individuals included architects, developers, bankers, real estate professionals, and planners. Because my research is being used as part of the case study research for Envision Central Texas, I was able to utilize connections there to find respondents. Members of the University of Texas, School of Architecture faculty were also invited to participate. While restricting data collection to the Austin area could possibly be considered a limitation, as undoubtedly responses might differ from participants in other parts of the country, my goal was to develop an understanding of the expected outcomes of mixed-use development specifically in Austin and for that reason it was not appropriate to extend the survey to individuals outside of Austin.

The survey questions were written to allow the respondents to compare mixed-use development concepts to the equivalent traditional development concept. The first

question referred to a mix of uses in one building versus a single use in one building. The second question referred to a horizontal mixing of uses in a defined development versus the separation of residential and commercial uses in a defined development. In each question the respondent was given a list of phrases such as "cheaper to build" or "enhanced sense of community". The respondent was then asked to decide whether that phrase was more reflective of one development concept versus the other. This information would allow me to deduce whether or not there is a consensus among professionals in Austin about the benefits of mixed-use development. This information would also allow me to develop criteria that can be used to supplement the criteria established in the Belzer method.

There were seven responses to the survey, covering a relatively broad range of professional roles including one developer, one environmental planner, two city planners, two architects, and one urban designer. A possible concern in this type of analysis is that the full scope of roles was not accounted for. Should this type of analysis be replicated in the future, a recommendation would be to include a financier.

No correlation between job type/professional role and response was noticed. The two architect responses varied greatly as well as the two responses from planners, leading to the possible conclusion that one's profession does not necessarily predispose a person to certain opinions. This is only a possible conclusion, however, and without a much broader and more comprehensive analysis with many more participants, no definitive conclusions can be drawn on this matter.

These surveys were very useful in determining a list of the "most" expected benefits of two different types of mixed-use developments: vertical mixed-use projects (a

mix of uses in one building versus a single use in one building), and horizontal mixed-use projects (a mix of uses horizontally and vertically in a defined neighborhood or area versus a separation of residential and commercial uses in a defined neighborhood or area).

Like described earlier, the survey respondents were given a list of phrases and asked to decide whether the phrase was truer of mixed-use developments or of single-use developments. This list of phrases was generated from a synthesis of the literature. For each phrase, I tallied the number of votes awarded to the mixed-use option and then ranked them by descending number of votes, as depicted in Table 5.3.

Interestingly, the responses for vertical mixed-use projects and horizontally mixed-use projects were almost identical in terms of rank order. This implies consistency in expectation between both types of projects. However, while the rank order was the same for each potential benefit, the number of votes varied slightly between types of project. Horizontally mixed projects received more votes across the board for each potential benefit. Based on this observation it could be argued that either there is more certainty (through observation and experience) that horizontally mixed projects provide these benefits, or it is more theoretically accepted (or expected) that horizontally mixed projects are able to provide these benefits.

Potential Benefit	Vertical		Horizontal	
	Rank Order	Votes	Rank Order	Votes
Enhanced sense of place	1	6	1	7
Increased convenience and access to goods and services	1	6	1	7
Increased convenience and access to transportation	1	6	1	7
Less car trips generated	1	6	1	7
Less vehicle miles traveled	1	6	1	7
Enhanced sense of community	1	6	2	6
More market demand	2	5	2	6
Increased security to residents and guests	3	4	3	5
Less risk to developer	4	2	4	4
Cheaper to build	5	0	5	0

Table 5.3: Potential Benefits and Rank Order

CHAPTER 6: MIDTOWN COMMONS EVALUATION

	Performance Criteria	Score (0-3)
Location Efficiency	Increased mobility choices (walking and bicycling as well as transit).	3
	Increased transit ridership.	2
	Good transit connections to the rest of the city and region.	1
	Reduced auto use and reduced auto ownership.	1
	Reduced transportation costs to individuals and households.	1
	Sufficient retail development (quantity, quality, and diversity) to satisfy the basic daily needs of residents and employees working in the area.	1
	Ability to live, work, and shop within the same neighborhood.	1
Value Recapture	Increased homeownership rates or more adequate housing, especially among borderline income groups.	1
	Increased use of location efficient mortgages.	1
	Creation of housing units with lower-than-average parking ratios where the cost savings from parking reductions are passed on to consumers.	1
	Reduced individual and community spending on transportation and therefore greater discretionary individual and community spending.	1
	Utilization of existing infrastructure.	2
Financial Return	For local governments: higher tax revenues from increased retail sales and property values.	1
	For the transit agency: increased fare box revenues and potential ground lease and other joint development revenues.	2
	For the developer: higher return on investment.	2
	For employers: shorter and more predictable commute times, easier employee access.	1
	A balance between financial return and other goals of TOD so that projects are not judged purely on their monetary return.	3
Choice	A diversity of housing types that reflects the regional mix of incomes and family structures.	1
	A greater range of affordable housing options.	0
	A diversity of retail types. Diversity will necessarily be limited by the market area and the particular desires of the residents.	1
	A balance of transportation choices.	3
Livability	Improved air quality and reduced gasoline consumption.	1
	Increased mobility choices (pedestrian friendliness, access to public transportation).	2
	Decreased congestion/commute burden.	1
	Improved access to retail, services, recreational, and cultural opportunities.	1
	Improved access to public spaces, including parks and plazas.	0
	Better health and public safety (pollution-related illnesses, traffic accidents).	0
	Better economic health (income, employment).	1
Efficient Regional Land Use Patterns	Less loss of farmland and open space.	3
	More suitable regional and subregional balance between jobs and housing.	1
	Shorter commutes.	1
	Less traffic and air pollution.	0
	Station areas as that can serve as destinations as well as origins.	1

Table 6.1 Midtown Commons Evaluation and Score

LOCATION EFFICIENCY: 10/21 48%

1) **Increased mobility choices (walking and bicycling as well as transit):** Midtown Commons offers a multitude of transportation choices including a commuter rail stop, a bus stop along a primary bus corridor, a bike lane immediately adjacent to the site, and roadway connectivity to major arterials and two major highways: Mopac (Loop 1) and Interstate Highway 35. The property is equipped with sidewalks to ease with pedestrian mobility around the site. Connections from the residences to the rail stop are well marked and the pedestrian experience is not altered in any way at the property line separating Midtown Commons from the publicly owned rail stop. However, due to the lack of commercial uses onsite and in the immediately surrounding area, there is little for residents to walk to. For this reason, walking is generally speaking not a viable transportation option at Midtown Commons.

2) **Increased transit ridership.** According to the property manager at Midtown Commons, residents are using the rail line in some capacity. Due to the limited hours of daily commuter rail service, however, full ridership potential is likely not being realized. Residents wishing to use the rail to access downtown during the evening or on weekends for leisure activities are unable to do so, and must rely on alternate methods of transportation. It can be expected that should Capital Metro expand the rail's operating hours, transit ridership might become appealing to a broader spectrum of people.

3) **Good transit connections to the rest of the city and region.** Currently, Midtown Commons provides transit connections via rail from Leander, TX to downtown Austin. Intermediate stops are at this time not considered to be significant destination points, though as Austin continues to grow and infill development is encouraged, this might change. As of April 2011, the City of Austin was engaged in a comprehensive planning process, the results of which will guide and encourage future development around rail stops.

4) **Reduced auto use and reduced auto ownership.** In my opinion, Midtown Commons has yet to achieve a significant reduction in auto use or auto ownership. This is more likely due to a comprehensive lack of transit connectivity in Austin than it is of a flaw of Midtown Commons. As of April 2011, bike lane connectivity throughout the city was piece meal, the rail line connects areas that were still developing and not considered significant destination points (with the exception of downtown), and it was difficult to navigate by foot in large portions of the city. When the commercial spaces at Midtown Commons begin to lease and the neighborhoods surrounding the rail stops see increased development, it can be expected that residents of Midtown Commons will not need to rely as heavily on personal automobiles.

5) **Reduced transportation costs to individuals and households.** Because the preponderane of residents of Midtown Commons are, generally speaking, still relying on vehicles to meet most of their daily needs, it is presumed that transportation costs for individuals and households have not yet been

substantially reduced. This performance criterion is difficult to measure, especially for a development project still in its infancy. A full evaluation of this performance criterion is outside the scope of this paper, however if it were to be done measurements should be taken over a long period of time.

6) **Sufficient retail development (quantity, quality, and diversity) to satisfy the basic daily needs of residents and employees working in the area.** As of April 2011, the most notable commercial use within Midtown Commons is the Blackstar Brewery, a cooperatively owned brewery/bar/restaurant. The brewery draws the attention of both outside visitors and residents of Midtown Commons. Employees of Blackstar have noted that the opening of rail line coincided with an uptick in sales at the brewery. Other commercial uses include only some small office uses housed in the designated office spaces and within some of the live/work units. Daily needs cannot be met within the confines of the development.

7) **Ability to live, work, and shop within the same neighborhood:** As of April 2011, residents of Midtown Commons were unable to live, work, and shop within the same neighborhood. This is due primarily to lack of commercial uses currently located at Midtown Commons. Nearby commercial developments are lacking as well. Ideally, Midtown Commons would be home a larger employer—specifically this employer should not be in the retail/sector. Wages for employees of the retail/service sector are typically not high enough for these

employees to afford the housing available at Midtown Commons. A larger, well known employer would likely attract other commercial development as well.

VALUE RECAPTURE: 6/15 40%

1) **Increased homeownership rates or more adequate housing, especially among borderline income groups:** Because phase II of Midtown Commons has not yet been constructed, no units are yet available for purchase, though they are included in the plan. Rents for apartment and live/work units are comparable to similar quality housing in the area.

2) **Increased use of location efficient mortgages:** Because there were no homes for sale as of April 2011 in Midtown Commons, there has been no use of location efficient mortgages. When the second phase of the development is constructed, however, perhaps location efficient mortgages could be implemented.

3) **Creation of housing units with lower-than-average parking ratios where the cost savings from parking reductions are passed on to consumers.** Parking ratios were slightly reduced as part of the Subchapter E Commercial Design Standards.

4) **Reduced individual and community spending on transportation and therefore greater discretionary individual and community spending.** Information of this kind should be tracked over a long period of time. The development has not been in operation long enough, nor has the MetroRail, for this criterion to be properly evaluated. Midtown Commons might consider collecting data on this subject, however.

5) **Utilization of existing infrastructure.** Because Midtown Commons is an urban infill site, it did not rely entirely on the installation of new infrastructure. It utilizes existing fire and police forces, and existing school systems. Roads were built within the site, but no new roads were necessary for access to Midtown Commons.

FINANCIAL RETURN: 9/15 60%

1) **For local governments: higher tax revenues from increased retail sales and property values:** Since the retail component of Midtown Commons is very new, and extremely limited in quantity and diversity, it is unlikely that the City of Austin is realizing any significant tax revenue from increased retail sales. However, because the site was underutilized prior to its purchase by Stratus Properties and Trammel Crow, the City of Austin is likely to realize increased tax revenues resulting from an economically productive property versus a vacant/underutilized one; and it is expected to increase with future retail development.

2) **For the transit agency: increased fare box revenues and potential ground lease and other joint development revenues:** As of April 2011, the Capital Metro Red Line had only been operating for roughly 14 months. This performance measure should be evaluated in the future, when Midtown Commons has reached full buildout, and the rail line has been operating for a number of years. As the TOD zone surrounding Midtown Commons continues

to develop, along with the two other TOD zones defined by the City of Austin, it can be expected that ridership will increase, and the rail line will become more profitable for Capital Metro. This issue is hinged on both the ability of the three TOD zones to evolve into significant destination points, and the willingness of Capital Metro to expand the rail line operating hours into the late evenings and weekends. Each of these factors are somewhat influenced by the other, so it is likely that any significant progress for either one will be accomplished over time and in piece meal.

3) **For the developer: higher return on investment:** Like the previous performance measure, this should be evaluated after Midtown Commons approaches full build out and has been in operation for a number of years. It is likely, however, that whether or not Midtown Commons results in a large return on investment for the developer, Stratus Properties and Trammell Crow can be considered a "pioneer" in mixed-use development projects in Austin. As of April 2011, it is the only master planned transit-oriented development underway in Austin. Because the both the developers and the City of Austin were operating in unfamiliar territory, it can be expected that future mixed-use/TOD projects implemented by the developers will realize greater returns simply because of an increased level of experience. Additionally, the close working relationship with the City of Austin established throughout this process will be of service to the developers in future projects. In sum, regardless of the eventual monetary success or failure of Midtown Commons, the experience and collaborative

relationships the developers gained will not only make them more competitive but lead to better returns on future developments as well.

4) **For employers: shorter and more predictable commute times, easier employee access:** This performance measure cannot yet be accurately evaluated because Midtown Commons is neither large enough, nor been operating long enough for employers downtown to have collectively noticed a difference. Additionally, of the commercial uses present in Midtown Commons, Blackstar Brewery is a new commercial use. No comparison can be made, and the remaining commercial uses consist of self-employers or small local businesses. These companies have few employees, so it is unlikely that they have noticed a significant difference in commute times.

5) **A balance between financial return and other goals of TOD so that projects are not judged purely on their monetary return:** This has been accomplished. Public sector representatives of Midtown Commons have expressed great satisfaction with the installation of the bike line and the seamless transition between the privately owned development and the publicly owned rail stop. The enforcement of the Subchapter E Commercial Design Standards was used as a way to help ensure that the goals of this TOD project were met. While this may have had a negative impact on the developer financially, these accomplishments are the first steps in encouraging and fostering a more sustainable city. The City of Austin and the developers alike seem to recognize this accomplishment.

CHOICE: 5/12 42%

1) **A diversity of housing types that reflects the regional mix of incomes and family structures:** Currently Midtown Commons offers one and two bedroom apartment units, live/work units, and studio apartments/lofts. There is no single family detached housing available as of April 2011, though it is planned for future phases of development. I would argue that this mix of housing does not reflect the regional mix of incomes and family structures, though it seems to appeal to the younger demographic of Austin.

2) **A greater range of affordable housing options:** As previously mentioned, rental rates for apartments at Midtown Commons are comparable to apartments of similar quality in the area. There is no affordable housing component. As the population of Austin grows and the central city tends to densify, it is probable that the demand for higher end apartment units along the rail line such as Midtown Commons will increase, most likely resulting an increase in rental rates. Property taxes for the second phase of development are also likely to be high, resulting in a reduction in affordability. To help combat this issue, Midtown Commons might offer a wider range of housing types in its second phase of development including condos, townhomes, alley flats, and small detached single-family homes. The developers might also consider adding an affordable housing component to help maintain a diversity of residents. Assuming commercial uses begin to occupy Midtown Commons and the

remainder of the TOD zone, this change should have a direct impact in reducing transportation costs and may be able to offset housing affordability concerns.

3) **A diversity of retail types. Diversity will necessarily be limited by the market area and the particular desires of the residents:** As previously mentioned, retail and commercial uses are extremely limited at Midtown Commons at this time.

4) **A balance of transportation choices:** As previously mentioned, Midtown Commons offers a variety of alternatives to automobile transportation including commuter rail, busses, and bike lanes.

LIVABILITY: 6/21 29%

1) **Improved air quality and gasoline consumption:** As of April 2011, it is unlikely that any significant improvement in air quality or gasoline consumption has been realized. For those residents of Midtown Commons that commute via rail to downtown Austin for their employment, some decrease is gasoline consumption is likely. However, the site is still lacking major employment and recreational activities that residents could walk to instead of commute. Additionally, an improvement in air quality is a regional measure that should be tracked over long periods of time as more TODs are constructed along the MetroRail.

2) **Increased mobility choices (pedestrian friendliness, access to public transportation):** As mentioned earlier, Midtown Commons provides alternatives to an entirely auto-dependent lifestyle by encouraging the use of and

providing access to rail, busses, and bike lane. With that being said, however, daily needs are still not accessible for residents without vehicles, which unfortunately reduces true mobility choices.

3) **Decreased congestion/commute burden:** Residents working in downtown Austin or in other locations along the rail or bus lines have the option of utilizing rail or bus for commuting. It is assumed that not all residents are able or willing to take advantage of this option, and that Midtown Commons is not yet occupied at a level high enough to make a significant impact on traffic or congestion on the adjoining roadway network.

4) **Improved access to retail, services, recreational and cultural opportunities, and public spaces:** Because the Capital Metro commuter rail line connects Midtown Commons to downtown Austin, it can be argued that residents living there can take advantage of better access to retail, services, recreational and cultural opportunities. Due to the limited hours of rail service, however, residents seeking to access recreational and cultural opportunities offered downtown during the evening or weekends may need to rely on alternate methods of transportation.

5) **Better health and public safety (pollution-related illnesses, traffic accidents):** This information should be tracked over a long period of time.

6) **Better economic health (income, employment):** As of April 2011, Midtown Commons has been unable to provide a significant increase in employment opportunities or income for residents/commercial lessees.

EFFICIENT REGIONAL LAND USE PATTERNS: 6/15 40%

1) **Less loss of farmland and open space:** Because transit-oriented development in the Austin area is in its infancy, this performance measure cannot be measured, but the notion of increased infill housing development in lieu of suburban land consumption is a positive measure in these regards. As of April 2011, not enough large scale transit-oriented development has been constructed along the Capital Metro red line to have any significant improvements in this area, however, Midtown Commons should be commended for choosing to locate on an infill site, remediating the land, and contributing to the tax base within the city limits.

2) **More suitable regional and subregional balance between jobs and housing:** Because transit-oriented development in the Austin area is in its infancy, this performance measure cannot be evaluated.

3) **Shorter commutes:** Because transit-oriented development in the Austin area is in its infancy, this performance measure cannot be evaluated.

4) **Less traffic and air pollution:** Because transit-oriented development in the Austin area is in its infancy, this performance measure cannot be evaluated.

5) **Station areas as that can serve as destinations as well as origins:** Because transit-oriented development in the Austin area is in its infancy, this performance measure cannot be evaluated.

Overall, Midtown Commons is, as of April 2011, not successful in achieving its expected outcomes. However, Midtown Commons possesses great potential to achieve its goals within a reasonable time frame. The project, expected by its planners, designers, and developers to be a walkable, sustainable, community that encourages transit usage, and provides opportunities for "live, work, and play", has not yet achieved its goals. Many of the criteria used to evaluate the project received a score of 2, indicating that while the criterion in question has not yet been met, it is likely that as the development matures it will be.

As of April 2011, Midtown Commons' most pressing flaw is that commercial leasing, necessary for creating a location efficient development, has lagged substantially behind residential leasing. The circumstances surrounding the lack of commercial development, however, appear to be temporary or can be corrected. Midtown Commons is not a mature development. To evaluate this project at this stage in its development, and give it a final "grade" would be highly shortsighted.

Firstly, the development, like any project, is dependent on many forces behind its control including the Metrorail's operating hours and poor market conditions. Those two factors, more than other influencing factors, are what have hindered commercial development on the property.

The City of Austin's Subchapter E Commercial Design Standards have indeed also played a role in the lack of commercial leasing. This is one of the first projects of its kind in Austin, and consumer unfamiliarity with this type of design (buildings built to the sidewalk, with parking in the rear) could potentially deter visitors traveling at higher speeds on Lamar Boulevard. Whether or not this assumption is true is

irrelevant—potential commercial lessees that *perceive* it to be true will not lease space at Midtown Commons. The introduction of signage delineating where there is available parking on site could mitigate this perception. This signage should be visible from Lamar Boulevard, in either direction. In addition, as the project continues to mature, consumers will become more familiar with Midtown Commons and better understand how to access the site and where to park their vehicles. With time, as the market fully recovers, and as the commuter rail increases in popularity, owners of Midtown Commons should see an improvement in commercial leasing.

While the project has not yet been successful in regard to commercial development, it has been successful in other regards. Most importantly, the development has created a precedent: its mere existence can help mitigate apprehension about future developments of its kind. The iterative collaboration and communication between developer and City during the project's development was essential in the fine-tuning and adjusting of the City of Austin's TOD ordinance.

The process of infill development is, by nature, piecemeal, and Midtown Commons is the first step in creating more regional balance, connectivity, and dense destination points. For example, the bike lane along the project's frontage is the first piece of a bike lane that will eventually span the length of Lamar Boulevard. As more infill development occurs in central Austin, Midtown Commons will have more to contribute.

CHAPTER 7: CEDAR PARK TOWN CENTER EVALUATION

	Performance Criteria	Score (1-5)
Location Efficiency	Increased mobility choices (walking and bicycling as well as transit).	1
	Increased transit ridership.	0
	Good transit connections to the rest of the city and region.	0
	Reduced auto use and reduced auto ownership.	0
	Reduced transportation costs to individuals and households.	0
	Sufficient retail development (quantity, quality, and diversity) to satisfy the basic daily needs of residents and employees working in the area.	1
	Ability to live, work, and shop within the same neighborhood.	1
Value Recapture	Increased homeownership rates or more adequate housing, especially among borderline income groups.	2
	Increased use of location efficient mortgages.	1
	Creation of housing units with lower-than-average parking ratios where the cost savings from parking reductions are passed on to consumers.	0
	Reduced individual and community spending on transportation and therefore greater discretionary individual and community spending.	0
	Utilization of existing infrastructure.	0
Financial Return	For local governments: higher tax revenues from increased retail sales and property values.	2
	For the transit agency: increased fare box revenues and potential ground lease and other joint development revenues.	0
	For the developer: higher return on investment.	0
	For employers: shorter and more predictable commute times, easier employee access.	1
	A balance between financial return and other goals of TOD so that projects are not judged purely on their monetary return.	0
Choice	A diversity of housing types that reflects the regional mix of incomes and family structures.	0
	A greater range of affordable housing options.	1
	A diversity of retail types. Diversity will necessarily be limited by the market area and the particular desires of the residents.	1
	A balance of transportation choices.	0
Livability	Improved air quality and reduced gasoline consumption.	0
	Increased mobility choices (pedestrian friendliness, access to public transportation).	1
	Decreased congestion/commute burden.	0
	Improved access to retail, services, recreational, and cultural opportunities.	0
	Improved access to public spaces, including parks and plazas.	2
	Better health and public safety (pollution-related illnesses, traffic accidents).	0
	Better economic health (income, employment).	1
Efficient Regional Land Use Patterns	Less loss of farmland and open space.	0
	More suitable regional and subregional balance between jobs and housing.	1
	Shorter commutes.	1
	Less traffic and air pollution.	0
	Station areas as that can serve as destinations as well as origins.	0

Table 7.1 Cedar Park Town Center Evaluation and Score

LOCATION EFFICIENCY: 3/21 14%

A mixed-use development, like Cedar Park Town Center, that is not a transit-oriented development can still possess some qualities of a location efficient development. Mobility choices may be still be available in the form of busses, biking, and walking. A mixed-use development that is not accessible by transit may still be location efficient in that residents and visitors are able to live, work, and play within the development. This ability might be demonstrated through a reduction in travel costs that result from long commutes. In other words, access to transit does not alone result in a reduction in travel costs, though it is a contributor. For the purposes of this study, performance criteria specifically related to rail ridership will not be included.

1) **Increased mobility choices (walking and bicycling as well as transit):** Cedar Park Town Center is designed to encourage walkability through the creation of an enjoyable streetscape and the inclusion of an extensive sidewalk network. Due to the lack of commercial uses, however, there is little for residents to walk or bike to within a reasonable distance, requiring that residents still rely on automobiles to access daily necessities. For this reason, Cedar Park Town Center does not offer increased mobility choices. It is important to note that the Capital Metro rail line runs adjacent to the property, but a rail stop was not installed at the Cedar Park Town Center due to the City of Cedar Park's decision not to become a member of Capital Metro. The inclusion of a rail stop could have successfully reduced automobile dependence for residents, or at the very

least contributed to an increase in mobility choices by connecting Cedar Park Town Center to significant destination points.

2) **Reduced auto use and reduced auto ownership:** As mentioned previously, Cedar Park Town Center does not show any demonstrated reduction in auto-use or auto ownership because as of April 2011, the development is only a single-family residential development with no transit connections or commercial development. Additionally, a significant reduction in auto usage would likely only be realized if the City of Cedar Park decides to become to join Capital Metro and a rail stop is installed. Additionally, the introduction of commercial uses to the development would be required for any noticeable reduction in automobile dependency.

3) **Reduced transportation costs to individuals and households:** Because residents of Cedar Park Town Center must still rely on vehicles to meet most of their daily needs, it would be difficult to argue that transportation costs for individuals and households have been substantially reduced.

4) **Sufficient retail development (quantity, quality, and diversity) to satisfy the basic daily needs of residents and employees working in the area:** As of April 2011, no commercial uses were operating at Cedar Park Town Center. Retail and service needs of residents must be met off site.

5) **Ability to live, work, and shop within the same neighborhood:** As of April 2011, residents of Cedar Park Town Center were unable to live, work, and shop

within the same neighborhood. This is due to the lack of commercial uses currently located in the development.

VALUE RECAPTURE: *3/15* *20%*

1) **Increased homeownership rates or more adequate housing, especially among borderline income groups:** All residences at Cedar Park Town Center are available for sale, not for rent (unless they are for rent by owner), therefore the development is represented by virtually 100% home ownership.

2) **Creation of housing units with lower-than-average parking ratios where the cost savings from parking reductions are passed on to consumers:** All housing units available at Cedar Park Town Center are detached single-family residences. Driveways accessible via alleyways with at least two off-street parking places are available at each residence, resulting in no reduction of parking ratios. On street parking is available as well.

3) **Reduced individual and community spending on transportation and therefore greater discretionary individual and community spending:** Because no transit connections and no commercial uses are present on site, no reduction in individual or community spending on transportation could be expected.

4) **Utilization of existing infrastructure:** Cedar Park Town Center was a greenfield development requiring the installation of new utilities and infrastructure.

FINANCIAL RETURN: 3/15 20%

1) **For local governments: higher tax revenues from increased retail sales and property values:** The absence of commercial uses would indicate no increase in tax revenues from increased retail sales. Property values of residences in Cedar Park Town Center are slightly higher than that of surrounding residential developments.

2) **For the developer: higher return on investment:** Cedar Park Town Center did not result in a higher return on the investment for the developers.

3) **For employers: shorter and more predictable commute times, easier employee access:** Because there are no are commercial activities at the Cedar Park Town Center, this criterion is not met.

4) **A balance between financial return and other goals of TOD (in this case, Mixed-Use Development) so that projects are not judged purely on their monetary return:** Because the development, as of April 2011, only operates as a single-family residential development, with no transit connections, this would imply it is only being judged on monetary return. The goals of a mixed-use project are unable to be realized

CHOICE: 2/12 17%

1) **A diversity of housing types that reflects the regional mix of incomes and family structures:** Cedar Park Town Center only offers single-family detached

residences. However, there is some variation in price, style, and size of the available homes.

2) **A greater range of affordable housing options:** Cedar Park Town Center offers no affordable housing options. Sale prices are slightly higher than that of the surrounding residential developments.

3) **A diversity of retail types. Diversity will necessarily be limited by the market area and the particular desires of the residents:** As of April 2011 no commercial or retail uses are in existence at Cedar Park Town Center.

LIVABILITY: 4/21 19%

1) **Improved air quality and gasoline consumption:** This criterion is not met because residents of Cedar Park Town Center must rely solely on personal vehicles to travel. In addition, because Cedar Park Town Center is located in what is considered primarily a bedroom community, whose residents commute primarily via personal vehicles, is it unlikely that any regional air quality improvements have been realized.

2) **Increased mobility choices (pedestrian friendliness, access to public transportation):** Cedar Park Town Center is pedestrian friendly in that its design encourages walkability. However, due to the singularity of use within the development and the lack of access to public transportation, it cannot be concluded that Cedar Park Town Center offers a range of mobility choices.

3) **Decreased congestion/commute burden:** As previously mentioned, Cedar Park Town Center does not foster a reduction in automobile dependency,

therefore it cannot be expected that the development would help reduce congestion or commute burden.

4) **Improved access to retail, services, recreational and cultural opportunities, and public spaces:** As of April 2011 no retail, services, or cultural opportunities are available on site, and there is no transit connection to help residents access these types of uses. Cedar Park Town Center does offer a park and playground, thereby providing public spaces and recreational opportunities.

5) **Better health and public safety (pollution-related illnesses, traffic accidents):** As of April 2011 there is not enough information available to adequately evaluate this criterion, however, it is unlikely that the development would result in a reduction in pollution-related illnesses. The alternative street design, and reliance on alleyways as opposed to driveways may have some impact on traffic accidents, but this should be tracked over a long period of time in order to make a comparison between the Cedar Park Town Center and single-family developments with a conventional street pattern.

6) **Better economic health (income, employment):** This criterion has not been met due to the lack of employment opportunities created at Cedar Park Town Center. If the commercial development ever gains momentum, this criterion has the ability to be met.

EFFICIENT REGIONAL LAND USE PATTERNS: 2/15 13%

1) **Less loss of farmland and open space:** Cedar Park Town Center was built on a greenfield, and therefore does not represent a preservation of open space. The

relatively higher residential density in comparison to other single-family subdivisions in Cedar Park does, however, reduce the consumption of open space to some extent.

2) **More suitable regional and subregional balance between jobs and housing:** Because no commercial uses are present at Cedar Park Town Center, the development has not been successful in creating a better regional balance of jobs and housing.

3) **Shorter commutes:** Because no commercial uses are present at Cedar Park Town Center and there is no transit connection, it is unlikely that the development would contribute to shorter commute times.

4) **Less traffic and air pollution:** Because of highway connectivity within the development, it is likely that traffic throughout Cedar Park Town Center is low, however residents of the development are still auto-dependent, resulting in no decrease in traffic or air pollution.

As of April 2011, Cedar Park Town Center has not been successful at becoming a mixed-use, New Urbanist style town center. Unlike Midtown Commons, whose lack of success can be attributed to factors that can be corrected or mitigated with time, Cedar Park Town Center appears to be more fundamentally flawed.

The location of the Cedar Park Town Center, close to highways and in the literal center of the city, at first glance might seem like an appropriate place. The town of Cedar Park, however, a sprawled, bedroom community just outside of Austin, Texas

is not naturally inclined to accommodate a town center. A series of segmented and unconnected residential subdivisions, the town does not possess a natural focal point, meaning that the location for the Cedar Park Town Center was artificial and does not have the frequency of passing traffic typically inherent to a downtown or town center.

A possible solution to this issue could be the installation of a Capital Metro rail stop. Unfortunately, the fact that the City of Cedar Park did not capitalize on the close proximity to the commuter rail line (the same rail line that Midtown Commons is along), means that the only access to the site is via personal vehicles. A rail stop would help generate traffic into the site, improve accessibility and connection to other parts of the region, and encourage use of alternative transportation methods for those residents that commute to downtown Austin.

Additionally, the separation and sale of the commercial portion of the site limited the cohesiveness and unity of the project. Similarly, while the project was modeled on New Urbanist ideas, it did not full embody the spirit of New Urbanism. The project's designers were selective about which aspects of New Urbanism were going to be included. For instance, while alleyways and street trees were included, the street formation is not a true grid and the development only features detached single-family housing. A true New Urbanist development would feature a diverse housing stock, gridded streets, and the integration of residential and commercial uses. Like discussed in Chapter 2, the art of the New Urbanist planning movements is that is a collective and cohesive group of planning tools, deigned to be implemented together. Selectively choosing which aspects to include will limit a development's ability to realize the full range of New Urbanist goals. Unfortunately, as of April 2011, Cedar Park Town

Center is little more than a conventional residential subdivision, falling short of its aspirations.

Cedar Park Town Center has been most successful at increasing density typically found in a single-family residential neighborhood. Its greatest strengths lie in its potential: Should the commercial development gain momentum, than Cedar Park Town Center might increase its location efficiency and achieve more of its goals. For the development to truly become a town center, a destination point would have to be created by extensively increasing density through the construction of town homes, condominiums, or apartments.

CHAPTER 8: LESSONS LEARNED & CONCLUSIONS

Based on the review of the pertinent literature, the evaluation and criteria comparison modeled off Belzer's work, and the collection and analysis of focus group, interview, and site observation data, the author offers the following findings, conclusions and suggestions:

Midtown Commons and Cedar Park Town Center are two developments within the Austin, Texas area that both were intended to be mixed-use. Each development has realized outcomes different from what was initially expected and planned. There are many reasons this is possible. The remainder of this chapter will discuss what these reasons are and barriers that each development faced, and will provide recommendations for dealing with these barriers in the Austin area.

UNPROVEN MARKET

Master planned mixed-use developments are an unproven market in the Austin area. Aside from Midtown Commons and Cedar Park Town Center, two other master planned mixed-use developments of note are the Robert Mueller Municipal Airport Redevelopment located in east Austin, and The Triangle development located in Central Austin, a few miles south of Midtown Commons. The Triangle is the only master planned mixed-use development in Austin that has fully achieved vertical and horizontal mixing of uses. All commercial spaces within The Triangle are leased, and the residences are fully occupied. The Triangle, located adjacent to the historic Hyde Park neighborhood, and within reach of the University of Texas' student population is a

destination point for many people, complete with restaurants/bars, services, and some shops. The Triangle is not without flaws, however, it is one of the only examples of a successful mixed-use project in Austin. Because there is such unfamiliarity with this type of product, developers are hesitant to enter the market, prospective commercial occupants are hesitant to lease in them, and in some cases visitors might be hesitant to stop (i.e. drivers along Lamar may be unaware of where to park at Midtown Commons, so they will not stop).

This is a barrier that will likely correct itself over time. As demand for this type of development product increases, and as the existing mixed-use developments reach maturity, there will be less confusion and hesitation about mixed-use development. It is imperative, however, the existing mixed-use developments such as the Mueller redevelopment, Midtown Commons, and Cedar Park Town Center continue to grow and encourage commercial development. If these developments fail to achieve commercial success in the long run, it could be expected that future developers will shy away from mixed-use projects.

REGULATORY ENVIRONMENT

The relatively recent addition of the TOD ordinance and the Subchapter E Commercial Design Standards present challenges for developers who are unfamiliar with them. Working within unfamiliar regulatory confines can create confusion and delay review and approval processes, which comes at a cost to the developer. Aside from unfamiliarity, the new regulations often conflict with what is most profitable or

intuitive for a developer. While the purposes of the new regulations seem clear, there exists uncertainty as to whether they are appropriate for certain locations within Austin. For instance, there is a great disconnect between what exists currently along North Lamar Boulevard in the vicinity of Midtown Commons and what the City of Austin is expecting for the area. Currently, Lamar Boulevard is heavily dominated by high-speed automobile traffic. It is not an environment conducive to pedestrian activity, though subchapter E requires new commercial development be built to the street in order to foster a better pedestrian experience. These requirements have the potential to deter developers who wish to place teaser parking spaces in front of the buildings to attract potential customers driving along Lamar, and to deter prospective commercial occupants who fear that without obvious parking customers will not come.

A stringent regulatory environment exists to guide development over time, and any new regulations require a period of adjustment. Like the barrier of an unproven market, the issue of a strict regulatory environment will correct itself over time as it becomes commonplace. What exists at Midtown Commons and Cedar Park Town Center is the result of newly established and unfamiliar regulatory circumstances. These projects, both still in their infancy, are some of the first projects of their kind, and are therefore necessarily subject to trials and barriers that may not exist for future developments. It is imperative, however, that the City of Austin, Cedar Park, and other central Texas cities take constant care to fine-tune and adjust regulations to ensure that the development community can effectively accommodate them.

COMMERCIAL LEASING

Both Midtown Commons and Cedar Park Town Center have been relatively unsuccessful at attracting commercial occupants. Commercial occupancy is an extremely important aspect of a mixed-use development, and is crucial to creating a destination, encouraging the reduction of auto-dependency, increasing accessibility to daily needs, and adding to a sense of vibrancy, activity, and safety. A successful commercial segment will contribute significantly to the location efficiency and value recapture capabilities of a development. It will also add to the financial return to the developer. The developers at both Midtown Commons and Cedar Park Town Center are in ownership of underutilized commercial space, resulting in a significant loss of money. This lack of commercial leasing can be attributed to a number of things including some already mentioned such as unproven market, stringent regulatory environment, and factors such as poor market conditions or expensive rental rates.

While mixed-use projects are often more costly to the developer, it is important that the developer try and limit passing increased costs to commercial lessees, at least initially. Developers should provide incentives such as reduced rent to attract commercial occupants, and should seek occupants prior to opening. If the City of Austin is serious about promoting transit-oriented developments, then it could consider subsidizing commercial rents at TODs for the first few months subsequent to a development's opening, and especially if the transit system does not commence operations on the announced time schedule. Additionally, a developer could offer incentives to commercial occupants in place of offering certain residential amenities

such as a fitness facility or swimming pool. While this might result in the loss of some prospective residents, without a thriving commercial segment, the development will never achieve its intended goals (which could likely lead to the loss of prospective residents as well).

Also, commercial leasing tends to be more successful when the development is positioned near a "power center" retail development, such as a large grocery store or department store. Retail space that is located within the same development as a "power center" is appealing to prospective commercial occupants, because more customers are drawn to the area.

LOCATION AND CONNECTIVITY

Location is particularly important for mixed-use developments. Midtown Commons, while located in central Austin and in close proximity to public transit and major automobile routes, is not located near any other significant development. In other words, there is no reason other than Midtown Commons for visitors to go to Midtown Commons. New developments that locate in proximity to other significant developments tend to be more attractive to prospective commercial occupants. This is based on the rationale that shoppers will stop at smaller retail stores following their shopping trip at a "power center" in the same development.

It is possible then, that Midtown Commons will attract other development nearby, especially within the City of Austin's defined TOD zone. Developments tend to

play off one another, so in time, it is likely that Midtown Commons and the surrounding area will become a destination point, and therefore realize greater commercial success.

It is also important that mixed-use developments position themselves near major highways or automobile corridors. This is especially true for more suburban developments that aren't near a rail or bus route, and can't rely on biking. Visibility is important, along with access for ease of commuting to and from the development, especially if the development is, or is aspiring to be, a major source of employment for the area.

Mixed-use developments in Austin, TX, as of April 2011, are a relatively new development product. As pressures on the city to increase density and provide more sustainable living options increase, mixed-use development will become more commonplace throughout the city. Similarly, as existing mixed-use developments mature they will reach greater economic viability, which could likely reduce developer hesitation about pursuing mixed-use projects.

BIBLIOGRAPHY

Belzer, Dena, and Gerald Autler. "TRANSIT ORIENTED DEVELOPMENT: MOVING FROM RHETORIC TO REALITY ." *The Brookings Institution Center on Urban and Metropolitan Policy* df (2002): 1-38.

"City of Austin - Neighborhood Planning and Zoning: Transit-Oriented District." City of Austin - Austin City Connection: Home Page. http://www.ci.austin.tx.us/planning/tod/default.htm (accessed April 28, 2011).

"City of Cedar Park - Cedar Park Town Center." City of Cedar Park - Home. http://www.ci.cedar-park.tx.us/cp/page285299.aspx (accessed May 3, 2011).

"City of Cedar Park - Comprehensive Plan Update." City of Cedar Park - Home. http://www.cedarparktx.us/cp/comp_plan.aspx (accessed May 3, 2011).

Coupland, Andy. *Reclaiming the city mixed use development.* London: E & FN Spon, 1997.

Duany, Andres, Elizabeth Zyberk, and Jeff Speck. *Suburban nation: the rise of sprawl and the decline of the American Dream.* New York: North Point Press, 2000.

Grant, Jill. *Planning the good community: new urbanism in theory and practice.* London: Routledge, 2006.

Gupta, Prema Katari, and Kathryn Terzano. *Creating great town centers and urban villages* . Washington, DC: Urban Land Institute, 2008.

Jacobs, Jane. *The death and life of great American cities* . New York: Random House, 1961.

"New Urbanism." New Urbanism. http://newurbanism.org (accessed April 28, 2011).

Porter, Douglas R., Patrick L. Phillips, and Terry J. Lassar. *Flexible zoning: how it*

works. Washington, D.C.: Urban Land Institute, 1988.

Schwanke, Dean. *Mixed-use development handbook* . Washington, D.C.: ULI, 1987.

Talen, Emily. "New Urbanism and the Culture of Criticism." *Urban Geography* 21, no. 4 (2000): 318-341.

Talen, Emily. *New urbanism and American planning: the conflict of cultures*. New York: Routledge, 2005.

Witherspoon, Robert, Jon P. Abbett, and Robert M. Gladstone. *Mixed-use developments: new ways of land use*. Washington, DC: Urban Land Institute, 1976.